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PART FIRST.

ORIGINAL COMMUNICATIONS.

ART. I.—*Sore Mouths of Nursing Women, (Stomatitis Materna,)* By GEO. W. MARIS, M. D., Columbus, Ohio.

The Mucous Membrane of the mouth is liable to various forms of inflammation, which may be either simple or erythematic, eruptive or follicular. The former we commonly meet with among infants, and is generally regarded as an idiopathic affection, whilst the latter is more frequently recognized among adults as a symptomatic disorder. Strange as it may seem, though this disease, under the names of Apthæ and Stomatitis, (Infantum et Adultorum,) is treated of at some length in our systematic works, yet little or no reference is made to it, as it presents itself among *nursing women*—our Journals containing for the most part all that has been written of any value upon the subject. In the last number of the "Western Lancet" an elaborate paper, under the head of "Stomatitis Materna," by Dr. Hutchinson, of Hendricks county, may be found, which will repay the reader for its perusal, and to which he is referred for much valuable information.

The "sore mouth of nursing women," the name we prefer, and the most familiar one known to the profession, is manifestly a follicular inflammation, produced by impoverished blood, and consequently attended with a low grade of vascular action. It is not peculiar to this country, as erroneously supposed by many, but having a pref-

erence for those regions where malarial disorders prevail, and most frequently met with in such districts, the opinion of indigenous growth may be accounted for. Neither is this disease confined to the nursing period, as its title would seem to imply, but may exhibit itself at any time during the utero-gestative process, as well as the period of lactation, and when occurring in subjects of a tubercular diathesis, or depraved and feeble digestive powers, is frequently troublesome and vexatious, and always attended with more or less danger.

Some physicians may regard the "sore mouth of nursing women" as a disease of minor consideration, inasmuch as it so often yields to mild and paliative treatment, whilst the more obstinate cases, like many others, are consigned to a blind chance, to work out their own cure, or end their course in a fatal result.

The young practitioner, however, regards the case in a different aspect. His fortune and his reputation are alike in perspective, and every case of disease, simple or serious, that falls under his notice, is full of magnitude and importance. He feels that professional success hangs upon skill, and this upon accuracy of judgment, and where the latter fails, the treatment of disease becomes hap hazard and empirical, endangering alike his practice and his reputation. The necessity, therefore, for a clear and correct view of disease, pathologically and therapeutically, is at once obvious.

Pathology.—The local disease or "*mouth sore*," we regard as the mere expression of a deeper, though less visible and tangible trouble, viz: *a blood disorder*, or an abnormal condition of its normal elements, consequent upon a state of pregnancy or lactation, during which processes a heavy demand is make upon the circulating system of the mother, and which her assimilative organs are bound to supply, even at the risk of physical suffering and disorder in her own person.

Where these organs are *strong* and *vigorous*, and competent to furnish the pabulum required, without endangering the maternal health, we fail to meet with such forms of disease. But in such females as are naturally of feeble constitution, possessing a scrofulous or tubercular diathesis, or weak assimilative powers, the result of acquired or hereditary taint, or in any wise *constitutionally unfitted* for the task of procreating the species, it is not uncommon to find this disease—"*sore mouth*"—exhibiting itself in some form or other, and frequently

complicated with other associations, alike the offspring of the same parent mischief.

A few weeks since, we were called to see, with Prof. Dawson, a lady in her fifth month of gestation and her fourth child. We found her moribund. She was perfectly anæmic, as white as alabaster, and had been more or less so during each period of gestation, frequently suffering from "sore mouth" and its concomitant evils. From indications, the fœtus had perished some time previous. In this instance, death manifestly resulted from the failure of the act or function of utero-gestation, consequent upon an exhausted or impoverished blood, during which struggle the life of both mother and child were sacrificed. As in all similar cases, the "sore mouth" here was but a link in the chain of diseased action, and the offspring of the same evil, viz: *blood deficient in its normal elements.*

This deficiency more particularly concerns the *red corpuscles*, with an increase of the fibrinous element, now regarded by physiologists and pathologists as an excrementitious product, or waste tissues of the body. (Simon.)

M. Jacquimiér, from an examination of two hundred women at the eighth and ninth month of pregnancy, found a *diminution* of the *red corpuscles*. M. Cazeaux says that this condition of the blood is the most frequent cause of those functional disturbances in pregnancy usually attributed to *plethora*. Owing to the fact that such cases are benefitted or cured by iron and animal food, he likens them to chlorosis, in which a similar condition of blood is found.

The subjoined extract and table, showing the marked influence which pregnancy exercises over the composition of the blood, we take from the Western Lancet (H.'s paper):

"Andral and Gavarett analyzed the blood of 34 pregnant women. In 32 of the cases, they found the red globules below the healthy mean standard, in 6 of which they ranged from 120 to 125 parts in 1000, and in 26 from 95 to 120; they also found, that for the first six months, the fibrin in the 34 cases, uniformly below the natural quantity, varying from 1.9 to 2.9, while during the last three months it exceeded it, varying from 2.9 to 4.8, and averaging nearly 4. This gives the reason of the buffy coat of the blood in pregnancy, and we hence see that it is *anæmic*.

"Simon gives the analysis of the blood of 9 pregnant women, viz: 1 at the fourth month, 5 at five and a half months, 1 at six, and 1 at seven months, and before I quote the table of analysis, I may

remark that the average specific gravity of the blood of a healthy female is 1050; and I may, for the sake of illustration, give the healthy constituents of the blood, the proportion of each in the 1000 parts, which are, viz: water 790, fibrin 3, corpuscles 127, solids of serum 80.

This table shows the specific gravity, both of the defibrinated blood and of the serum.

He gives the mean, maximum and minimum specific gravity; and by calculation, we find that the specific gravity of the blood of the nine pregnant females was: mean 1038½.0; maximum 1440.95; minimum 1034.9. The constituent proportions as follows:

	Mean.	Max.	Min.
Water	804.6		
Fibrin	3.5	4.0	2.5
Albumen	66.1	68.8	62.4
Blood Corpuscles	111.8	127.1	87.7
Extractive Matter and Salts	6.6	8.7	4.7
Fat	1.922	2.519	1.115

This fat consisted of serolin, phosphorized fat, cholesterin, and saponified fat.

The salts in a thousand parts of blood consisted of

	Mean.	Max.	Min.
Chloride of Sodium	3.2	3.9	2.3
Other Soluble Salts	2.4	2.8	1.8
Phosphates	0.425	0.690	0.282
Iron	0.449	0.490	0.370"

Hence we see, that the blood of the pregnant woman is deficient in red corpuscles and solids, generally with an increase of fibrin, a state amply sufficient to produce all the disturbances to which she is subject during her puerperal condition and lactation afterward, for the demand upon her circulating system still continues during this period.

Symptoms.—We have said before that the "mouth sore" is but the expression of a deeper disorder—an impoverished blood. The stomach, therefore, failing to receive good food for its support, creates imperfect chyle globules, and these in turn imperfect blood corpuscles, and thus is lost the balance, between the demand of blood and the nourishment of the body to supply the demand. The first symptoms, then, as might be anticipated, are those of a dyspeptic character. The patient complains of debility, loss of appetite and

eructations, flatulence, uneasiness and pressure at the pit of the stomach. Along with these symptoms, upon examination, will be found urinary derangement, with painful micturition, &c. Following these ailments, after a longer or shorter duration, a scalding sensation of the mouth is complained of.

Here we may observe that the dermoid tissue, being less actively supplied with nutritive material than the other tissues, will be found, under the circumstances, the first to manifest lesion of function and structure. Upon inspecting the mouth about this time, it will be found to present the appearance of simple inflammation, (stomatitis) patches or spots being observed on the inside of the lips, on the tongue, or upon the fauces.

After a longer or shorter duration, and with proper treatment, this soreness or other symptoms subside, and an interval of relief follows, or, the case becoming aggravated, small, transparent, greyish or whitish vesicles become visible, having a raised ring at their base. Subsequently the vesicle breaks, an ulcer follows and spreads, the ring gradually disappearing. Cicatrization succeeds, sometimes rapidly and again tardy, whilst ulceration is very apt to recur after it has once healed. (Dunglison). The eruption may attack consecutively any of the mucous passages. Cases are on record, where a transfer of the irritation to the vagina, the nasal passages, the larynx, bronchiæ and eustachian tube took place, thus shewing not only its migratory character, but also that the producing cause is *one of a general pathologic class.*

In cases tending to a fatal issue, the entire tract of the alimentary tube may become involved, and hence after death, the stomach and bowels often exhibit traces of follicular inflammation and ulceration.

TREATMENT.—Under an idea of Plethora, (all diseases of pregnancy were formerly so regarded) our predecessors relied upon *antiphlogistics* as the only safe line of action, and with what success, the reader may well judge. Examining the "sore mouth of nursing women" in the light of its present pathology, the necessity of a tonic and invigorating course will be at once obvious. Our plan of treatment is two-fold. First, to correct and improve the digestive organs. Secondly, to furnish such materials to the blood, artificially, as will augment the amount of its red corpuscles and decrease that of the fibrinous element. The first indication is fulfilled by the use of alkalies and antacids with vegetable tonics; we prefer a mild infusion of cascarilla bark. If indications require a cathartic, we

prefer the salines (a seidlitz powder). Should diarrhœa alternate with the mouth sore, give vegetable astringents and opiates, omitting alkalies.

Infusion of logwood with cinnamon will be found to be an excellent and agreeable adjunct.

Gargle the mouth with the following:

℞ Boras Soda ʒj.
Sacch Albi ʒij.
Tinc. Opii ʒiij.
Aquâ Rosa ʒviij.

Mix. Use three or four times a day.

Should the case not yield a ready and favorable response to the above curative measures, our resort is to iron. Some prefer the protocarbonate, others Quevenne's metalic iron, and others again the pure carbonate.

℞ Carb Iron ʒj.
Ginger ʒij.
Sup. Carb. Soda ʒfs.

M et ft. in chart No. 12.

S. one 3 times a day in a little water. Continue gargling, and touch ulcerated spots with Nit. Argt.

Diet.—Good beef tea and similar ptizans, which will convey to the blood the wholesome elements it needs, with as little labor as possible to the digestive organs. Pay attention to the teeth and gums, and preserve them free from all vitiated matters or secretion, as such impurities have an influence upon the stomach.

To fulfil the second indication, give cod liver oil in conjunction with Quinine and Arom. Sulph. Acid, or a liberal use of wine, brandy or malt liquor, as may suit the taste or caprice of the patient.

℞ Quinine ʒj.
Elix Vit. ʒij.
Rose leaf tea ʒriij—mix.

S. a teaspoonful three times a day.

To Prof. Evans, of Chicago, belongs the credit of having first recommended the Cod Liver Oil in "sore mouth of nursing women." Others bear testimony to its beneficial effects. We have not had occasion to use it as yet; therefore cannot speak from experience. Recent chemical researches award to it the property of increasing the red corpuscles, and diminishing fibrin. It is worth a trial.

Neglected or badly managed cases of "sore mouth," upon close inspection, frequently betray local congestion or structural disease in one of the large cavities, particularly after repeated and protracted attacks. Under such circumstances, the treatment will be altered, amended or modified in a manner which will suggest itself to the mind of the attending physician, always bearing in mind the *asthenic* nature of the predominant disease, and the advantages to be derived from local measures.

Age, locality, diathesis, and the prevalence or not, *at the time*, of an epidemic, should be considered in the account, and receive their due attention.

WEANING.—Let this be a final resort, a compulsory measure, only to be recommended when all other means fail, and the Medical Art has been exhausted in search of remedies or measures to crown the cure, or bring desired relief. In sundering such a relation, we not only "inflict a wrong upon the mother's heart, which none but a mother can feel, but at the same time we deprive a harmless being, wonderfully and fearfully made, of that nutriment which the laws of Heaven have ordained for its existence."

Tabular Statement of 12 *cases of "stomatitis materna," shewing the direct ratio of the severity of the disease; as compared with the immature age of the individual, and the number of births, crowded into a short space of time.* By WM. LOCKHART, M. D.

Case	1,	aged	24	years.	3d	child.	max.	severity.
"	2,	"	26	"	3d	"	"	"
"	3,	"	25	"	4th	"	"	"
"	4,	"	22	"	3d	"	"	"
"	5,	"	17	"	1st	"	"	"
"	6,	"	21	"	1st	"	min.	"
"	7,	"	25	"	4th	"	max.	"
"	8,	"	23	"	3d	"	"	"
"	9,	"	22	"	1st	"	min.	"
"	10,	"	20	"	1st	"	"	"
"	11,	"	20	"	1st	"	"	"
"	12,	"	21	"	1st	"	"	"

In 4 of the above cases, Crural Phlebitis was an accompaniment. In 7 of them, (all that were examined) the urine was highly acid, and in all at some stage of the disease, severe pain was felt on passing water, (uric acid or its salts, urate of ammonia or soda, being

in excess.) In case 5th, the disease persisted eight months, and during the latter part of the term of her sickness, albumen was found in the urine in connection with epithelial cells, altered blood globules, and uriniferous tubules. (Hutchinson.)

In conclusion, a word with reference to Hematology. The blood, as a source of disease, has of late years engaged the observations of many excellent and prominent physicians, and their investigations have led to important results, at once gratifying to the profession, and giving a louder earnest that more will yet be accomplished in the field of medical science.

The grave in which lay buried for so many centuries, the old doctrine of "Humoral Pathology!" has been re-opened—its body exhumed and re-examined, new revelations have been made upon more correct data, and sounder principles of philosophy.

The light of Chemistry has directed toward the blood its blazing fires, and tried in its crucibles, and by its penetrating methods of analysis, *facts* have been elicited which clearly establish the claims of the old doctrine, (considered for ages as exploded,) to some truth and more worth. Thus—

"Truth crush'd to earth, will rise again."

Morgagni and Mascagni, if now living, would blush to read their opinions, once given to the medical world, and advocated with so much zeal.

Their opinion of the modus operandi of certain medicines, in diminishing a supposed "*Viscosity of the Blood*," they would now denounce with as much ridicule as they once supported and defended with so much earnestness and spirit. Chemistry is still pursuing her researches with unabated interest. Her fires are still burning, and the smoke of her incense still ascends from her altars. What her ardent votaries will yet accomplish, the future will determine.

Microscopic Anatomy is also in the field of exploration, contending for the palm, and subjected to its inquisition, it is hoped that many knotty and abstruse points in medical science will yet be unravelled, which will establish more *correctly* the claims and pretensions of the "medical art" to the character of a "*profound science.*"

Thus far, illustrations have been presented and facts developed, highly important in a practical point of view, and which, says Dr. Marshall Hall, may be summed up under the following heads, and are, viz:

"1st. In many diseases, as fever, inflammation, chlorosis, scorbutus, &c., there are many undoubted morbid changes in the blood itself.

2d. That other morbid changes are induced by an unwholesome atmosphere and an impure diet.

3d. That various miasmata in the atmosphere, and various poisonous qualities in food, produce morbid changes in the blood.

4th. That suppressed morbid secretions induce morbid changes in the blood.

5th. That *excessive secretions* induce other morbid changes in this fluid.

6th. That an *affection* of the *innervation*, or *nervous system*, may produce *its* peculiar changes on the circulating mass."

When we reflect how many of the above causes are brought to act upon female health, in a somewhat double capacity, during her period of gestation and lactation, is it at all surprising that her own blood should at times suffer deterioration, qualitative and quantitative, and thereby render her a subject of disease? Is it not *more surprising*, that woman, subjected to the influences of so many producing causes of physical disturbance, with a constitution of body, frequently but illy fitted for the function of utero-gestation, should, during this act, and subsequently, so often escape, even a "Stomatitis."

Query.—It may not be irrelevant to our subject to inquire, to what extent may not an abnormal condition of the blood, be *responsible* for that singular phenomenon—*Monstrosity?*

How far, may not disturbed innervation, affect the chemical constitution of the blood, thereby perverting or otherwise deranging the more perfect growth and development of the *fœtal tissues?*

ART. II.—*Gun-shot wounds.* By R. S. CONNER, M. D., Sarahsville, Noble county, Ohio.

Samuel Kirk, aged 21 years, corpulent, full athletic constitution, and of chaste and temperate habits, was on January 1, 1855, shot laterally through the lower region of the bowels by the accidental discharge of a U. S. rifle, sending the ramrod directly through his lower bowels and left fore-arm, which was flexed on his body. The gun was discharged in the act of ramming down the charge, (which

was large,) driving the missile through the plastering, lath, inch floor, and two beds on which he unfortunately lay sleeping, in one of our public hotels, on the second floor. The rod penetrated obliquely the right ilium about one inch below its crest, and two inches anterior to the sacro-iliac-synchondriosis and emerging from the body, about three inches in front of the opposite symphysis, touching the crest of the left ilium, and penetrating the left fore-arm near to the joint passing between the ulna and radius. The force being spent, he was now transfixed in this awful position. After the rod was extracted, which required considerable force, a severe and protracted chill soon followed, attended with great prostration of the vital forces.

Pulse was now indistinct, patient gave strong evidence of the rapid approach of dissolution, but by the active use of stimuli for two or three hours, an effort at re-action could be perceived. The symptoms now, at 12 M., were as follows: Pulse can be counted, and is more distinct, severe and violent pain in the back, attended with constant restlessness. Gave Sul. Morphia gr. ¼ to relieve pain in the back, and produce quiet. 3 P. M., pain in the back some relieved, pulse 40 and weak, patient complains of a dull pain in the region of the bowels where the rod passed; no fullness of the bowels, nor any evidence of extensive internal hemorrhage. Ordered Castor Oil, 2 oz. every 4 hours until two doses were taken, followed by stimulating enemata, which produced alarge soft discharge from the bowels, which to some extent relieved the pain in the back; at this time patient was unable to urinate, and bladder full; practiced catheterism. Ordered Opium gr. 1½ every 3 hours until pain was relieved.

Jan 2, 8 A. M. Patient has slept some during the night, decubitus on the back, pulse 60 and disposed to intermit, pain in the back has returned, and bowels are some sore over the region of the wound. Passed a catheter again into the bladder, and drew off a pint of healthy urine, (an operation, by the way, necessary for the next fortnight,) gave opium as before until pain was relieved, Castor Oil was again ordered for the bowels.

Jan. 3, 7 A. M. Patient sleeping and complains but little, says he loves to sleep, pulse 100, small and intermitting, head is hot and skin dry, thirst considerable. Gave a Seidlitz Powder and the effervesing draught to alay thirst. 3. P. M., stupor has increased, and patient is aroused with difficulty, pulse 120, small and irregular, s

full and violent re-action now obtains. Opened a vein in the arm, intending to be governed by the effect the bleeding had on the circulation, during which operation, the pulse regularly became more distinct and less frequent; the blood flowed *pleno rivo*, until about twenty-four ounces were taken, when patient awoke and expressed himself much relieved. Opened the bowels with oil and applied cold to the head.

Jan. 4. In the morning patient much better, pulse 90 and regular, thirst and stupor somewhat abated, has some pain in the back and soreness in the bowels, takes some nourishment and drinks slippery-elm mucilage. Suffice it here to remark that from this time, up to Jan. 15th, patient made a rapid improvement, under the daily use of laxatives through the day, and opium at night, accompanied by a strictly anti-phlogistic diet, and gave evidence of a speedy convalescence. The bowels now became sore, particularly in the right hypochondrium, and spinous process of the same ilium,—pulse soon came up to 110 strokes per minute, attended with all the concomitants of another re-action.

Jan. 16. Soreness has greatly increased in the region where the rod entered the body, pulse 120 and corded, thirst, head-ache, furred tongue, and retention of urine. Practiced catheterism, and prescribed Olium Ricini, oz. 2 every 4 hours, until three doses were taken, then gave enemata, which evacuated the bowels and produced some relief. Gave opium at bed time.

Jan. 17. Symptoms same as yesterday, with the addition of some fullness in the right hypo-chondriac and lumbar regions. Decubitus on the back. Treatment same as on yesterday.

Jan. 18 and 19. Symptoms unchanged.

Jan. 20. Tumefaction over where the rod entered the body, furred tongue and other symptoms as before.

Jan. 21 and 22. No change in symptoms worthy of note.

Jan. 23. In the morning, pain in the right side is extreme, thirst urgent, pulse 140, patient very restless, and presents an anxious expression of the countenance. 3 P. M., has passed from the bowels (without purgatives) about one quart of partly decomposed grumous blood, and extremely fœtid, which abated all the worst symptoms, and produced measurable relief. Patient now again approached the period of convalescence, which for the next 4 weeks was gradual and permanent, and now, Feb. 28, is able to walk

about through his room, says he feels well, and is rapidly gaining flesh and strength.

Remarks.—The above case presents to my mind, the following points:

1st. Perforation laterally of the parietes of the lower region of the bowels, including the peritoneum on both sides.

2d. Perforation of the ascending colon, and slight injury of the right kidney, as evidenced by the hemorrhagic and purulent discharge on the 23rd day, and subsequently, and by pain in the kidney, and the simultaneous discharge of mucous from the bladder.

3d. The small intestines were not perforated on account of the position of the body, it being on the right side and inclined forward, the rod would readily pass behind them, and that they were easily evacuated and discharges thin.

4th. That there was abcess where the rod entered the body, involving the peritaneal surface around the wound to a considerable extent, and communicating with the wound of the intestine, as indicated by the gradual swelling, severe fixed pain in that region, and finally the discharge of sanguinous, and purulent matter from the bowels.

5th. The curative process was by suppuration, and granulation, which was aided by quiet, loose diet, and preserving the bowels in as placid a condition as possible.

PART SECOND.

AMERICAN AND FOREIGN INTELLIGENCE.

Art. 1.—*Discussion at the Imperial Academy of Medicine on M. Depaul's Report on the Treatment of Displacements of the Uterus by Intra-Uterine Pessaries.*

After some remarks from M. Piorry, the discussion on this report, of which an abstract was given in our preceding No., p. 257, *et seq.*, was opened by M. Malgaigne, who, while admitting the zeal and talent of the reporter, regretted to find so much party spirit in the report, which more resembled the impassioned argument of a special pleader, than a plain and impartial judgment of facts. He could not

consider as *repugnant to common sense* a treatment which had been practised by Velpeau, Amussat, Simpson, Huguier, and Valleix. It appeared even from the report, that in some cases the intra-uterine pessary had been useful, and sometimes it had procured instantaneous relief, showing that the symptoms were really owing to displacement, and he had often witnessed cases of descent of the uterus, where the use of a pessary had put a stop to all the symptoms; the hypogastric belt, also, by replacing the uterus, had often produced the same beneficial results. It appeared to him that the important inquiry was to establish a differential diagnosis of uterine affections; since the same symptoms were ascribed by some exclusively to displacements, by others exclusively to enlargement (*engorgement*), by others to granulations, ulcerations, etc., etc. In neuralgia of the uterus, the pessary, he thought, might certainly be serviceable. In short, the intra-uterine pessaries ought not to be entirely rejected, but their use should be restricted to cases without inflammation, acute or chronic, the instrument should be employed cautiously, and not be allowed to remain permanently; and, above all, the treatment should be controlled according to rational indications; the practitioner should know *what he does and why he does it.*

M. Huguier, who had not signed the report in consequence of differing from M. Depaul in some of his conclusions, made a full and able statement of his views. With regard to the intra-uterine pessaries, he thought that they ought not to be entirely rejected; but that their use should be confined to those exceptional cases of displacement giving rise to serious symptoms, which resist other means of treatment, that their application should be made with great caution and carefully watched. He especially commends their efficacy as emmenagogues, when other means have failed. On the pathological question, he explained the circumstances under which uterine displacements occasion no symptoms; and after distinguishing the local and sympathetic affections which are occasioned by inflammations etc. of the uterus, he defines those symptoms which properly belong to and are occasioned by uterine displacement, particularly disorder of the menstruation, and distressing affections of the bladder and rectum (frequent micturition, retention, obstruction of the rectum, etc.,). He considers that deviations, especially ante and retro-flection, may occasion sterility, and maintains that the displacements are undoubtedly curable. In conclusion, M. Huguier relates his experience of the general and local treatment of the displacements by pessaries,

etc., and describes the methods by which he has succeeded in replacing the uterus when retro-flexed by the insertion of pledgets (*mèche*) of lint in the rectum.

M. Hervez de Chégoin was of opinion that the displacements may occasion most distressing symptoms, which are only to be relieved by replacing the organ. But this result ought to be accomplished by vaginal pessaries external to the uterine cavity. The intra-uterine pessaries had produced so many serious accidents, that he was surprised any one could follow a method attended with such risks. He considered that they ought to be altogether dismissed from practice.

M. P. Dubois denied that the vaginal pessaries recommended by M. Chégoin, could ever effectually replace a retroverted uterus; consequently, he considered the intra-uterine instruments to be perfectly rational, and indeed the only means capable of effecting the end in view. The only question was, are they without danger? It is certain that their introduction frequently gives rise to severe, sometimes even fatal consequences; sometimes the instruments cannot be tolerated; while, in some cases, they are quite innocuous, and occasionally their use is attended with immediate, or even permanent, relief. M. Dubois, however, maintains that in no instance do they ever attain their proposed object; the uterus is never replaced permanently in position by their use. This assertion he supports both on theoretical grounds, and by the result of his examination of cases treated by himself, by Valleix, and by Simpson. Although, however, the displacement is never removed by this method, the uterine symptoms may be alleviated or even cured by it. These results are owing to the pessary relieving the weight of the uterus, and the tension of its ligaments; to the alteration in the morbid action, by contact when the uterus is inflamed, and to the alteration of its morbid sensibility in cases of neuralgia. In the latter class of cases, the method is of particular service, and often relieves all the symptoms, even where no deviation had existed. Many of M. Valleix's cures occured in cases of neuralgia. Consequently, the intra-uterine pessaries ought to be retained in practice, not as directors of the position of the uterus, but as modifying agents which may be placed in competition with other efficacious means already known as such, cauterizations, douches, etc. And in all cases, the general treatment should be attended to as well as the local, a principal condition to which M. Valleix owes much of his success.

M. Cazeaux expressed his opinions at great length. He objected to the report for stating the unfortunate and fatal cases, and omitting the successful ones. He admitted that by removing the displacements, both the symptoms which it occasions, and even the concomitant lesions, granulations, etc., may be cured. In opposition to M. Dubois, he maintained the efficacy of the (M. Chégoin's) vaginal pessaries in retroversion; and he considered inflexion to be a congenital condition in the child, adopting the opinion of M. Boullard, Follin, and Verneuil. He is opposed to the intra-utarine pessary, as mostly useless and often dangerous, but he considered that the uterine sound, with proper precautions, may be rendered safe, and is of real service.

M. Gibert maintained that too much importance had been attached to uterine diseases altogether, and great illusions existed in regard to them; that they often depended on constitutional states; and he mentioned instances of several diseases of the uterus, where erroneous and overstrained views of their pathological consequences had led to methods of treatment as severe and dangerous as they were useless and uncalled for.

M. Velpeau, in one of the most important addresses delivered in the discussion, entered at considerable length into the details of the question, and opposed, in decided terms, the conclusions of M. Dupaul's report. He passed a high eulogium on M. Valleix, and attached great importance to the results of his practice. He maintained that practitioners have not exaggerated the effects of uterine displacements, nor have they attributed to them those affections which resulted from other pathological conditions. Wherever disease of the uterus, enlargement or engorgement (if not mistaken for anteflexion, as has often happened), or ulceration, or lucorrhœa occurred, no practitioners could overlook these conditions, or confound them with the effects of simple uterine displacement. And, although there may be cases of uterine displacement, without urgent symptoms, just as there is hardly any important organic disease the symptoms of which may not be latent, still no one could doubt the serious affections which may be caused solely by uterine displacements, and may be removed by replacing the uterus. M. Velpeau was convinced that, although these deviations yielded, in general, a favorable prognosis, yet that they produced, especially in nervous women, affections of real danger. M. Velpeau next examined the means of remedying these affections, enumerated by M. Depaul and others; and,

while recognizing their usefulness in certain cases, he was quite persuaded of their radical inefficiency. In consequence of this conviction, he had himself long ago attempted the use of intra-uterine pessaries, but had desisted after a trial of a few months, being deterred more by theoretical considerations than by the results of practice. He now thought that the dangers of these pessaries had been exaggerated, and might be avoided by more careful and experienced manipulation. The intra-uterine pessaries had not indeed solved the difficulties in the radical treatment of uterine displacements, but they had already rendered great services, and would, with further experience, render more; they ought not to be rejected, but their employment ought to be regulated judiciously; and he trusted to the experience of M. Valleix to disclose the advantages and the disadvantages which belonged to this method of treatment. M. Velpeau was of the opinion that the conclusions of the report ought to be suppressed, and that the Academy could only vote in reference to the cases brought forward by MM. Broca and Cruveilhier.

M. Depaul explained that the conclusions already given were merely the summing up of his report, and that he would, after the discussion was finished, submit to the Academy a series of conclusions embodying the unanimous opinion of the committee.

M. Amussat said that the idea of introducing bougies (*tiges*) within the cavity of the uterus, first suggested itself to him in 1826, on seeing M. Recamier use the uterine sound for diagnostic purposes. Among the first cases in which he used the pessary was that of a woman with anteversion; he introduced a pessary with an ivory stem into the uterus, and allowed the patient to go about with the instrument *in situ*. Inflammation supervened, and the patient died. Deeply grieved in consequence of this mishap, he tried to remedy all displacements by extra-uterine instruments. He employed for this purpose conical pessaries, which resembled ivory cupping-glasses; but these were found productive of so much pain, that he had to abandon their use. For thirty years he had used both intra and extra-uterine instruments. (Here M. Amussat exhibited to the members of the Academy his various instruments—some made of ivory and steel, and others of india-rubber, elastic gum, etc.) He was discouraged, however, by the general results of instrumental treatment. He had heard of many spontaneous cures of uterine displacemements,

resulting from local inflamations and ulcerations having produced adhesions between the uterus and vagina, and this led him to imitate nature, and to attempt their cure by gently cauterizing the posterior part of the cervix, that by the adhesions formed by the cicatrization of the sore, the displacements might be radically and permanently cured. The successful results of this mode of treatment had far surpassed his anticipations. Relaxation of the vagina and procidentia of the uterus often rendered the application of the caustic somewhat difficult; but by putting the fingers into the rectum, and simultaneously using the sound, the position of the uterus could be sufficiently maintained during its application, and by a pessary thereafter. He related several successful cases illustrative of this mode of treatment in cases of retroversion. He had not found cauterization in the anterior lip of the cervix to be beneficial in anteversion. In such cases he used a cup-shaped pessary (*en goblet*), to support the uterus. In conclusion, he believed the indiscriminate use of pessaries for the cure of displacements to be prejudicial; he considered the employment of intra-uterine instruments as dangerous in some instances, and as productive of merely temporory benafit in the great majority of cases; but he characterized his own method of treatment as free from all danger, and as permanent in its results—except after pregnancy.

M. Malgaigne again spoke at great length. He agreed with M. Hervez de Chègoin, in considering that uterine displacements occasioned great pain, and also engorgement, and that these disappeared after the replacement of the organ. But he affirmed that it was impossible to recognize engorgements of the uterus apart from, and independent of, displacements. He commented, with some severity, on the statements made by Gibert, in which that gentleman had underrated the importance of uterine affections, and attributed their symptoms to general pathological conditions of the system. Referring to what had been said by M. Dubois, he alleged that neuralgia of the uterus did not appear to be a very common complaint, for although he *had* seen cases of it, they were very few in number: but he bowed deferentially to the experience of Dubois. He maintained that the pain occasioned by pure displacements of the uterus was removable by mechanical means; and that the recumbent posture caused its cessation. This circumstance he regarded as pathognomonic of the affection. He looked upon the speculum as of little use in the diagnosis of displacements, as he had known such cases, when

examined by means of it, diagnosed as ulcerations of the cervix, and treated needlessly with cauterants. M. Huguier had alleged that displacements, when trifling in amount, occasioned no pain, but herein he was in error. The suffering occasioned by displacements was by no means regulated by their extent, but solely by the special susceptibility of the patients in whom they occurred. Great prolapsus might occasion no pain, while trifling deviations of position might be quite intolerable. M. Cazeaux had said: "Congenital inflexions are seldom the cause of pain, while those occurring accidentally are always the source of suffering, which is sometimes very acute." He asked M. Cazeaux for some proof of the existence of congenital inflexions, and by what means he distinguished them from others. He could conceive of no way except saying to the patient: "Madam, have you had this inflexion from your birth?" After passing a high compliment on M. Valpeau, he made some remarks on certain portions of his address. Valpeau had stated his belief that the displacements occasioned pain in the round and broad ligaments, which he said were filled with nervous filaments derived from the great sympathetic, and continuous with the mesenteric nerves. This doctrine Malgaigne condemned as unphysiological. He did not agree with Velpeau in thinking that "no experienced practitioners could overlook these conditions." The present discussion was the best proof of the possibility of such mistakes. As to the hypogastric belt, which had been originated and greatly used by Velpeau, he affirmed that it could always be borne by patients who had simply uncomplicated displacements; and that where it was not borne well at first, it seldom was so even after usage for some time. *Can uterine displacements be replaced?* Undoubtedly, for he had seen three cases of retroflexion cured spontaneously. There was no difficulty in the replacement of so mobile an organ; and in ordinary cases, where there were no adhesions, the instrument, when introduced into it, replaced it instantaneously, and without any effort. He could not see the advantage to be gained by allowing the instrument to remain (as proposed by Simpson, Valleix, and others) within the uterus, for days, weeks, or months. What was the purpose of this? To give tonicity to the ligaments? They were not placed in their normal direction. If it was in order to allow the intestines (which were normally interposed between the uterus and the rectum, and keep it *in situ*) time to slip behind the organ again, it was unnecessary, as this was the work of a moment. He was of opinion that the instrument for replacing

the uterus should not be allowed to remain within it more than a few minutes at the utmost. *When the uterus is replaced, can we maintain it permanently so?* That was much less probable, for the organ having once been displaced, was very prone to become so again. He believed that some complete recoveries had been effected, but that in no case was a cure certain. Seeing, then, that a cure was so very uncertain, and palliation alone could be hoped for, he considered it was neither prudent nor reasonable that we should subject our patients to the risk of danger and death. He concluded thus: "I have only one word more to add, and that is this: If, unfortunately, I had to treat my wife or my daughter for a uterine displacement, I should not choose the more dangerous of two palliative measures, and most assuredly, I should not subject them to the use of the intra-uterine instrument."

M. Ricord desired to make a few remarks on the treatment of certain hyperæsthetic conditions of the cervix and vagina, which were sometimes consequences or complications of various displacements of the uterus, with or without some other morbid condition. There were many cases of displacement where the pain was alleviated or removed by lying in a certain position. He considered that much of M. Velix's success was due to his displacing and isolating the uterus from its painful position, without making pressure (*sans prendre un point d'appui*) on the sensitive hyperæsthetic parts. For a serious case of this nature, in which all the resources of therapeutics had failed in the ablest hands, and in which *considerable benefit* had been derived from the use of M. Valleix's instrument—he had invented a new instrument, whereby the uterus was isolated, supported and maintained in a suitable position, without the instrument entering the cavity of the womb, or touching the vagina. Its use was quite painless and free from bad consequences in cases where the cerevix could be touched by an instrument or by the finger of the accoucheur. This instrument consisted of a forceps, which was introduced by the aid of a speculum, and the points of which seized the cervix. By means of a ring, moved by a screw, the uterus could be raised to any desired height; and the whole apparatus was fixed by means of the plate (*plastron*) of M. Valleix's instrument. In conclusion, he considered, with MM. Paul Dubois and Velpeau, as well as with M. Huguier and with M. Malgaigne in his first speech, that the mode of treatment practiced by Simpson and Valleix was produc-

tive of great benefit, when applied to cases requiring it, and that consequently it should not be rejected from practice.

M. Robert said he rose with some hesitation to address the Academy, but having been a member of the commission for whom M. Depaul acted as reporter, he considered it right to state wherein he differed in opinion from M. Depaul. He did not, with M. Depaul, consider that the influence exercised by uterine displacement on the health of females, had been at all exaggerated. In his opinion, there existed two classes of deviations—the one comprising such as were primitive, and resulted from accidental and occasional causes; the other, such as were secondary, occasioned by different lesions of the uterus, more especially of the body of the organ. The former class of cases were observed to occur thus: "A woman in good health makes a sudden or violent effort, or falls on the breach; she feels at the time a crack and a painful sensation in the lower part of the abdomen. From this time she suffers more or less pain; menstruation becomes deranged, and is either too scanty or too profuse. She consults us, and we find retroversion; the uterus is painful, tumefield, etc." He observed that such cases should not be neglected, as they did not always remain uncomplicated, and functional disorders, as well as organic lesions, were liable to result from them. The latter class of cases followed chronic metritis, uterine catarrh, and inflammation of the cellular tissues surrounding the uterus. They occurred after protracted labours, and especially after miscarriages; and were observed in females of lymphatic temperament, in whom uterine congestion occurred without signs of phlegmasia. The fundus of the uterus was generally at fault in these cases, and was often so voluminous and heavy that it swayed backwards and forwards. In retroversion, suffering resulted from the interrupted circulation in the uterus, from the obstruction offered to the passage of feces, and from the pressure of the organ on the sacral nerves. He expressed astonishment at what had been said by Depaul and Velpeau as to the ease with which displacements might be diagnosed. He had studied diseases of the uterus carefully during the twenty years which he had been surgeon to the Hôpital be Lourcine, and he still often found great difficulty in diagnosing displacements. He considered the pathognomonic sign of displacements adduced by Velpeau and Malgaigne, viz: freedom from pain in the recumbent posture and return of uneasiness

on rising—applicable only to cases of anteversion complicated with procedentia (*abaissement*), and not to retroversion.

He had for a long time been in the habit of introducing dilating bougies into the cavity of the uterus, and never saw any bad effects; and he had also tried to replace the organ by means of an instrument like that shown by M. Velpeau, but without success. He also employed Simpson's pessary. He first used it in case of retroversion which had resisted all other treatment. No evil result occurred during its use, but, on the contrary, the catamenia, which had been absent more than three months, returned in normal quantity on the fourth day after its application. It was worn for a period of six weeks, and during this time, a second menstrual epoch occurred, without any pain or inconvenience. At the end of the six weeks, it was withdrawn, and he then found that the uterus had regained its normal position. The retroversion returned, however, and the pessary was again introduced. The patient left the hospital, and went about in Paris for ten or twelve days without experiencing any pain; but feeling it uneasy after that time, she applied for its removal. Since then he had never seen her. He used Simpson's instrument in a second case of retroversion, but as it induced a continual discharge of blood, he was obliged to withdraw it on the tenth day. In a third case of retroversion, occurring in a woman of sanguine and irritable constitution, he used this pessary. He had to withdraw it, however, at the end of three hours, inasmuch as it caused severe uterine pains, accompanied by vomiting. He tried it again three times, at intervals of several days, but without success. He had, therefore, abandoned the use of the instrument. Although injurious results had followed the use of this instrument, he admitted that it was proved by incontestible facts, that in very many cases, where all other measures had failed, this mode of treatment had been productive of complete and lasting success. He thought that it would be premature to exclude this instrument from practice, but he considered it very desirable that its mode of action was better understood, and above all, that we knew accurately all its indications and counterindications. This knowledge would render its employment more efficacious, and would diminish the number of accidents resulting from its use.

M. Depaul then replied at great length, and maintained that his report had been impartially prepared. M. Huguier had said that intra-uterine pessaries should be used "in those exceptioual cases of

displacement, giving rise to serious symptoms, which resist other means of treatment." If displacements occasioning severe symptoms were rare, how much more so must be those cases which resisted treatment? He could fearlessly affirm that such cases were hardly to be met with during the course of a long career. As regarded the use of pessaries for emmenagogue purposes, he could say that cases of amenorrhœa affecting the life and health of women were very rare, and that those which resisted ordinary medical treatment were still more exceptional. He believed that the sanguineous discharge provoked by the introduction of these instruments was *not* the catamenial fluid, but a true uterine hemorrhage, which had been mistaken for menstruation. As to the influence of displacements upon the health, he believed that statistics, collected from a number of rigorously observed cases, were necessary to set the question at rest. He still remained convinced that there was great exaggeration in the opinions of the partisans of mechanical replacement; and he thought that he had proved this from their own observations. He had never denied that displacements or flexions might occasion sterility, and he believed this to be due to an alteration both of structure and of form. Were uterine displacements incurable? No one had affirmed this absolutely. There were a great many displacements, especially congenital inflexions, which resisted all treatment, but there were others which were easily removed. The first question he always asked himself when called to treat such cases, was: "Is the tissue of the organ sound?" If not, he tried to remedy the disease before the displacement. He did not mean absolutely to assert that uterine displacements were of no consequence, or that they caused no accidents. He had seen enough of these diseases to know that it was not so. He agreed with M. Hervez de Chégoin that many displacements resulted from diseases of the uterus, but he did not consider, with him, that cases of uncomplicated displacement, producing distressing symptoms, were at all common; he believed them to be very rare, but he did not deny their existence. It was far more usual to find displacements — flexions and versions — existing to a considerable extent, without in the least affecting the health, or leading the women in whom they occurred to suspect their existence. As regarded the introduction of the intra-uterine pessaries, he might mention that M. Michon had not only abandoned their use, but had expressed scruples about introducing foreign bodies even into the cervix, inasmuch

as he had seen peri-uterine inflammation and the formation of abscesses follow the introduction of a hollow sound. He agreed with the principles of treatment laid down by M. de Chégoin, and considered that mechanical treatment should never be resorted to until all other pathological conditions, existing simultaneously, had been removed; that we should not confine our attention *solely* to the local affection, but by all suitable means endeavor to remedy the general health, and those derangements of innervation, nutrition, and circulation, which are so common in such cases. He believed further that, in certain cases, it might be advantageous to associate with the local treatment of some uterine affections, the use of mechanical means, which by fixing (*immobilisant*) the organ without irritating it, might aid in removing chronic inflammations, of a partial or general character. He protested against the injustice of M. Cazeaux's accusation of having quoted only the unfortunate, and suppressed all the useful cases; he had drawn his data from all the cases he was cognizant of; and he knew of no really successful ones. He appealed to the statistics of M. Gosselin which he had quoted, for the truth of his assertion, that many uterine affections — even the most serious — might exist without giving rise to any uneasy symptoms. Displacement was a simple unimportant deformity. M. Cazeaux had alluded to catarrhs, granulations, ulcerations, neuralgias, etc., coëxisting with displacements. In such cases these lesions should be attacked before the displacements; and in sixty cases he had treated on this principle there were only three in which any bad symptoms remained after two or three months. He advanced a series of arguments and statistics, at great length, to prove the fallacy of the assertion—made originally by MM. Boulard and Verneuil, and quoted in the speech of M. Cazeaux — that anteversion was the normal condition of the uterus in children and women who had never borne children. He had shown by his researches that intestinal expansion, in the dead body, might raise up the organ, and so deceive observers. But he admitted that there was a *predisposition to anteversion* at all periods of life. He regretted that M. Cazeaux had not stated, for the enlightenment of MM. Huguier, Valleix, Nonant, and others, the "proper precautions" which rendered uterine catheterism safe. He did not deny the usefulness of the uterine sound (*hystéromètre*); he considered that it was wrong to make the use of it general, and thought its employment should be confined to the *few* cases in which it was indispensable. With considerable asperi-

ty, Depaul next attacked the assertion which had been made by Cazeaux, that there was no such thing as inflammation of the tissue proper of the uterus; and he quoted cases and authorities to disprove it. He alluded to the statement made by M. Dubois, that the uterus was never permanently replaced by the use of instruments, and asked if, in the event of this statement being true, it did not militate against the use of intra-uterine pessaries. After the cases cited by M. Dubois and himself, he thought there could be no doubt of the fact that these instruments were useless. (*"Les redresseurs ne redressent pas."*) He believed that a modified form of the pessary might, perhaps, as Dubois said, relieve uterine neuralgia; but he did not hesitate to express his opinion, that the evil results and fatal cases caused by the intra-uterine pessary ought to exclude it from use in the treatment of all serious uterine phlegmasiæ. He next alluded to M. Malgaigne's speech, and considered as very inconclusive and unsatisfactory the test he gave for the diagnosis of displacements, viz: cessation of pain on assuming the horizontal posture. He also objected to Malgaigne's detestation of the speculum, and of vaginal examination in such cases. He had accepted an invitation from M. Malgaigne, on the 2d July, to go to the Hôpital St. Louis, to see two cases there which had been cured by M.'s hypogastric belt. They were said by Malgaigne to be cases of simple displacement—the one a case of anteversion, the other of retroversion. On examining the patients manually and by means the speculum, he found considerable ulceration of the cervix to be present in both cases; in the first there existed, in addition, slight anteversion and considerable prolapsus, in the other there was no displacement whatever. He agreed with all that had been said by his learned master, M. Velpeau, in praise of the high scientific character and general probity of M. Valleix; but he dissented from the opinions expressed by Velpeau as to his practice. If Valleix had had cases proving the successful use of intra-uterine instruments, he was astonished that he had not published them. Velpeau had attributed most of the evil results of pessaries to errors of practice and diagnosis, and to want of expertness and ease in manipulation. He could not see wherein lay the difficulty of introducing a bougie into the uterine cavity, and could not imagine practitioners like MM. Valleix, Nélaton, Huguier, Aran, etc. being deficient in proper precautions or expertness. What always astonished him was that the uterus should be so tolerant of instrumental interference, when it was recollected how easily it was

irritated by the presence of a small foreign body, and how the presence of a simple clot or polypus within its cavity induced violent contractions of it, which only ceased when the offending substance was expelled. There was a great difference between these foreign bodies and an intra-uterine pessary formed of solid, inflexible material. It was said that the end of the stalk should not touch the fundus uteri; but it was forgotten that this organ had, properly speaking, *no* cavity; and, however short might be the instrument introduced, it acted on the organ by all the parts of its surface, and especially by its point, against which the uterus was continually being impinged, either by its own inherent force of contractility, or by impulsions given to the organ by muscular movements and the pressure of the intestines. M. Velpeaux had concluded his speech by expressing a hope that M. Valleix would decide the question as to whether these instruments should or should not be used. M. Valleix had already done so; but his opinions were dangerous, and therefore he (M. Depaul) could not accept them. He concluded by laying before the Academy the following conclusions made in the name of the commission, and carried by a majority, with the exception of the third, in which M. Depaul said he was at variance with his colleagues:—

1. The cases reported to the Academy by MM. Broca and Cruveilhier, along with numerous others on record, prove that the use of the intra-uterine pessary may often occasion serious accidents, and sometimes even death.

2. In the rare cases in which this instrument has appeared productive of advantageous results, it is not proved that it had always acted by replacing the uterus.

3. In some exceptional cases where uterine displacements (*déviations*) have occasioned serious functional derangements, and where all known therapeutic measures have been tried in vain, the application of the intra-uterine pessary may be tried as a last resource.

4. The commission has the honor to propose a vote of thanks to M. Broca, for his his very interesting communication which has originated the late debates; and also to M. Cruveilhier.

The President put the first conclusion to the vote.

M. Velpeau.—This conclusion appears to me to have been adopted; but it is too severe. Instead of saying "the use of the intra-

uterine pessary may *often,*" I would substitute the words, "may *sometimes* occasion," etc.

The President.—It is proposed to suppress the adverbs altogether. It should be read: "The use of the pessary *may* occasion," etc.

The President then put the first conclusion to the vote, with the word "*often*" suppressed. It was adopted in this modified form.

The *second* conclusion was carried unanimously, without any modification.

The *third* conclusion was then read, and M. Gibert demanded its suppression.

M. Velpeau.—I insist on its being allowed to remain.

M. Cazeaux. I am convinced that the use of the intra-uterine pessary is always useless and sometimes dangerous. I cannot adopt this conclusion.

The President. — It contains the words: "As a last resource." For this purpose we may try any thing. [Laughter.]

Several members proposed the suppression of the conclusion, and the President proposed to put it to the vote.

M. Jobert requested the suppression of the words "as a last resource" (*comme dernière ressource*).

M. Velpeau supported this amendment.

The conclusion thus modified was put to the vote and rejected.—*Monthly Journal Medical Sciences,* Aug. and Sept. 1854.

ART. II.—*Parisian Medical News. Communicated to the Editor of the American Journal,* from E. WARREN, M. D.

M. Bernard has been making a number of experiments in regard to the secretion of sugar by the liver. In a recent lecture, he took a dog which had eaten nothing for four days, and examined the blood of the vena porta and sub-hepatic veins. In the first he found no sugar at all, but in the other he discovered that substance in considerable quantity. From these facts, he drew the necessary inference that the faculty which the liver possesses of forming sugar exists when no aliment has been taken into the system. He affirmed, in this connection, that this creative power of the liver was not at all destroyed in animals who had fasted even for eighteen days.

He took another dog, the pneumogastric nerve of which had been cut twenty-four hours before, and, after making an examination of

his blood, demonstrated that it contained no sugar at all. He found none of that material in the hepatic veins, and scarcely a trace of it in the liver itself. He said that if the dog were examined at the expiration of forty-eight hours not a particle of sugar could be detected in that organ; from which he concluded that by arresting the action of the nerves which preside over the functions of the liver, its power of forming sugar was entirely destroyed. He then laid down the general law, that "all the secreting organs are directly under the influence of the nerves, and that their secreting powers may be increased or diminished by exciting or depressing the nervous system."

In illustration of the proposition, he proceeded to show that he could at pleasure either increase the amount of sugar secreted, lessen or arrest this peculiar function of the liver, or force that organ to produce a different substance, which might subsequently be transformed into sugar.

1. As a means of demonstrating his ability to increase the amount of sugar, he took a rabbit, and punctured its medulla oblongata, at a point situated between the origins of the acoustic and pneumogastric nerves. He then affirmed that in an hour the rabbit would be diabetic, in consequence of the irritation of the nerves thus produced. At the end of that time he made an examination of the urine of the animal, in the presence of the whole class, and found that sugar presented itself in considerable quantity in that secretion. He accounted for the existence of sugar in the urine by the fact that the liver is the great reservoir of sugar in the economy, and that when the quantity of that substance is increased in this organ, the blood becomes saturated with it, and the urinary secretion is impregnated as a necessary consequence. He said that he had made many experiments for the purpose of ascertaining whether the kidneys themselves are capable of secreting sugar, and to settle the question of its transmission outwards by other passages. The result of his researches was a conviction that, like everything else excreted from the economy, it manifested a certain preference in its selection of organs of elimination and channels of escape. For his experiments in this direction, he had employed: 1, different kinds of sugar; 2, iodide of potassium; and, 3, prussiate of potash, as the substances most easily recognized in liquids. When these materials are taken into the system, all correct observation proves that they are found in certain secretions and not in others.

uterine pessary may *often*," I would substitute the words, "may *sometimes* occasion," etc.

The President.—It is proposed to suppress the adverbs altogether. It should be read: "The use of the pessary *may* occasion," etc.

The President then put the first conclusion to the vote, with the word "*often*" suppressed. It was adopted in this modified form.

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The President. — It contains the words: "As a last resource." For this purpose we may try any thing. [Laughter.]

Several members proposed the suppression of the conclusion, and the President proposed to put it to the vote.

M. Jobert requested the suppression of the words "as a last resource" (*comme dernière ressource*).

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The conclusion thus modified was put to the vote and rejected.—*Monthly Journal Medical Sciences*, Aug. and Sept. 1854.

ART. II.—*Parasian Medical News. Communicated to the Editor of the American Journal*, from E. WARREN, M. D.

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He took another dog, the pneumogastric nerve of which had been cut twenty-four hours before, and, after making an examination of

his blood, demonstrated that it contained no sugar at all. He found none of that material in the hepatic veins, and scarcely a trace of it in the liver itself. He said that if the dog were examined at the expiration of forty-eight hours not a particle of sugar could be detected in that organ; from which he concluded that by arresting the action of the nerves which preside over the functions of the liver, its power of forming sugar was entirely destroyed. He then laid down the general law, that "all the secreting organs are directly under the influence of the nerves, and that their secreting powers may be increased or diminished by exciting or depressing the nervous system."

In illustration of the proposition, he proceeded to show that he could at pleasure either increase the amount of sugar secreted, lessen or arrest this peculiar function of the liver, or force that organ to produce a different substance, which might subsequently be transformed into sugar.

1. As a means of demonstrating his ability to increase the amount of sugar, he took a rabbit, and punctured its medulla oblongata, at a point situated between the origins of the acoustic and pneumogastric nerves. He then affirmed that in an hour the rabbit would be diabetic, in consequence of the irritation of the nerves thus produced. At the end of that time he made an examination of the urine of the animal, in the presence of the whole class, and found that sugar presented itself in considerable quantity in that secretion. He accounted for the existence of sugar in the urine by the fact that the liver is the great reservoir of sugar in the economy, and that when the quantity of that substance is increased in this organ, the blood becomes saturated with it, and the urinary secretion is impregnated as a necessary consequence. He said that he had made many experiments for the purpose of ascertaining whether the kidneys themselves are capable of secreting sugar, and to settle the question of its transmission outwards by other passages. The result of his researches was a conviction that, like everything else excreted from the economy, it manifested a certain preference in its selection of organs of elimination and channels of escape. For his experiments in this direction, he had employed: 1, different kinds of sugar; 2, iodide of potassium; and, 3, prussiate of potash, as the substances most easily recognized in liquids. When these materials are taken into the system, all correct observation proves that they are found in certain secretions and not in others.

Sugar finds its way out by two passages: 1. By the kidneys; 2. By the gastric juice. Never mind how great the quantity of sugar injected in the veins, it does not make its exit from the body by saliva, the pancreatic juice, the tears, or the bile, but always selects the urine and gastric juice as the vehicles of its passage. M. Bernard had often examined the saliva of persons affected with diabetes at La Charitè, and had never been able to find in it a trace of sugar. He accounted for the "sweet taste," in the mouths of such persons by saying that the sugar which circulated in the blood came in contact with the gustatory nerves, and produced the sensation. As an evidence of this, he stated that Magendie had found that, when bitter substances had been injected into the veins, a disagreeable taste was immediately produced in the mouth. He also explained satisfactorily why certain observers had found sugar in the expectorations of persons affected simultaneously with diabetic and pulmonary disease. He said that the sputa of such persons differed materially from ordinary saliva; the one being the mucus produced in the bronchial tubes; the other, the secretion from the salivary glands of the mouth. The first, when analyzed, sometimes gave a slight saccharine reaction; the second was always entirely free from the slightest trace of sugar. As a means of showing that substances introduced into the economy are not eliminated indiscriminately by all the secretions, he performed the following experiment:—

He took a dog, into whose partotid gland he had previously introduced a small metallic tube, and injected his jugular vein with a liquid composed of a mixture of sugar, iodide of potassium, and prussiate of potash. After waiting a short time, he procured a quantity of saliva and urine and subjected them to certain chemical tests. The iodide of potash alone presented itself in the salivary secretion, whilst all three of the substances were found in the urine.

Mr. Bernard believes that the presence of sugar in the gastric juice had deceived and misled many observers. The liver and not the stomach, is the great sugar generator. The fact that wine in the stomach of diabetic persons becomes sweet after the lapse of a certain time, does not prove to the contrary in the least degree, as has been supposed by Mr. McGregor and others. The gastric juice, which is impregnated with sugar, mixes with the wine, and imparts a sacharine taste to it. The gastric juice also allows the passage of the prussiate of potash. as can easily be established in the following manner: Let some aliment containing iron be passed into the stom-

ach, and a preparation of prussiate of *potash* injected into the veins. Then an examination of the contents of the stomach will show that the prussiate of *iron* has been deposited among them.

These experiments, with their explanations, and the deductions from them, constituted the substance matter of one of the most interesting lectures delivered by M. Bernard since the opening of his present course. He is not a fine speaker, but he is undoubtedly the most successful experimenter, and the first practical physiologist in the world. His rooms are always crowded with students, both French and foreign, and he never fails to interest and instruct all who give him their attention.

M. Bourguignon, who has distinguished himself by many observations and investigations in regard to the subject of entomology, read an interesting paper before the Academy, at its last sitting, upon the itch of different animals. It had been generally believed that in each animal this disease was peculiar, and transmissible only to one of the same species. The acarus of man had been deposited upon dogs, cats, rabbits, birds, &c., without reproducing itself, or communicating the itch to those animals. And, on the other hand, the acari of horses, sheep, &c., when placed under the skin of certain medical students, and surrounded by all the circumstances most favorable to their germination, had died almost instantaneously. M. Bourguinon discovered, by means of the microscope, a remarkable resemblance between the acari of man and those of the lion, and immediately proceeded to test the susceptibility of the one to disease of the other. According to his account, the experiment was perfectly satisfactory, and it is now an established fact that an analogy exists in this particular between the king of the forest and the lord of creation. Thus has a most important service been rendered to pathology in general, and dermatology in particular, by the much abused and *fallacious* microscrope.

A new remedy has recently been discovered for mercurial stomatitis, which is likely to prove a most valuable therapeutical agent. It is well known that many experiments have been made for the purpose of ascertaining what chemical changes can be effected in mercury taken into the system, so as to render it harmless in its effects, and to make its elimination expeditious and easy. For the purpose of disengaging it from its combinations with albumen, restoring its natural solubility, and facilitating its exit from the economy, many different substances have been administered, as the acetate

of lead, preparations of sulphur, the sulphite of soda, &c. All who have had any experience in the practice of medicine, know that these remedies are not sufficiently certain and efficient in their effects to elicit much faith in their potency when the mercurial poison has really taken possession of the system. According to the experience of Messrs. Herpin and Blanch, of Geneva, the chlorate of potash, administered internally, answers the ends which have so long occupied the attention of the profession, and fulfills all the indications present in a case of mercurial stomatitis. They report a number of cases in which this remedy effected cures with marvelous certainty and rapidity. They say that it is equally sure in its effects upon adults and children, and that in every particular it is worthy the confidence and respect of the profession. It is administered in doses of 15 to 30 grains dissolved in a solution of gum acacia and water, or some other vehicle of the same description. The whole quantity is taken in the space of twenty-four hours, if the urgency of the case demands it. The dose for children is, of course, smaller, following, in fact, the general rule established for other medicines.

An animated discussion came off at the last meeting of the Academy, between M. Bousquet and M. Piorry, in regard to the specific nature of disease. The latter read a long paper before the Society, in which he took strong grounds against the nomenclature now employed by medical men, for the reason that it is based upon mistaken ideas of disease itself. He attempted to demonstrate an absolute non-identity between diseases, and to show that they are separable into a certain number of distinct organic morbid conditions. In fact, he seemed to look upon man, in his relation to pathology, as nothing more than the juxtaposition of a certain number of organs and members, between which there is no distinct and necessary connection or sympathy.

This called up M. Bousquet, who made an animated and able reply. He attacked the foundation of M. Piorry's argument, by showing that an intimate and necessary connection existed between the different component parts of the system, and the maladies which pertain to them. He ridiculed the changes proposed in the nomenclature of medicine as absurd and unnecessary in every particular, innovations which the necessities of science did not in the least degree demand. Unfortunately, however, he went too far. He declared that he placed the causes of all maladies in the source of life itself; that he was a *vitalist* in the fullest force of that term. This doctrine is more

dangerous than the other, since it condemns therapeutics to an absolute sterility, closes the door against all further research in medicine, and prevents the advance of the profession in its most important and practical direction. To place the root of all diseases in "vital action" is to transfer it to a *terra incognita*, which mortal ken cannot penetrate or explore.

A French journal, in giving an account of the discussion, closes its remarks with the following expressive exclamation, "O, vitalism! how many faults have been committed in thy name!" There is certainly much truth as well as force in the expression, and it should be inscribed upon the tombs of the advocates of this peculiar doctrine, as a warning to their followers.

M. Dubois has performed the Cæsarean operation twice within the last two months, without saving the mother in either case. After the last operation, he delivered a very interesting lecture to the class, giving his reasons in full for resorting to so extreme a measand stating the principles upon which he had acted under such circumstances during his life. He said that the inferior strait was too small to allow the passage of the child, either living or dead; that he knew the child was alive, and that experience demonstrated the *possibility* of saving the mother after the operation. In this state of the case, he had no alternative but to resort to the Cæsarean section. As a general rule, he preferred cephalotripsy to the Cæsarean operation, for the reason that it was better to sacrifice a child which had formed no ties in the world than a woman who had already many complicated relations with society. He considered the question between the two operations to be one for the conscience of each individual physician, and about which no general rules could be established. He said that, among the poor, the chances for the life of a motherless child were very slight, and that as experience showed that the *probabilities* were against saving the woman after the Cæsarean section, it was his practice, particularly in hospitals, to perform cephalotripsy instead of the other operation. One could hardly have supposed that views so sensible and just would have met with any opposition. They have, however, been warmly combatted, in a recent number of the *Gazette des Hôpitaux*, by Dr. Liégard. He thinks that it is a question for science, not for conscience. He believes that the experience of the past has established a rule on the subject, which should be universal in its application. He declares it to be the duty of the physician to save the child,

without taking into the account the right of either to life. He considers it better to sacrifice the mother, who has been *baptised*, than the child to whom circumstances have denied that *inestimable* right. These are his views on the subject, and I am afraid that they are entertained by too many physicians of France. There is no telling to what extremeties of folly blind superstition may drive even the most intelligent men, and when this *holy fear* of sacrificing both the *soul* and *body* if the child comes in to warp the judgment of the profession, it is to be apprehended that the learned professor may find himself in a small minority. Dr. Liégard gave some valuable statistics on the subject, which I will repeat.

Sounias, a physician of Bruges, reports that his own wife had submitted seven times to the Cæsarean section.

Simon has collected sixty instances in which the women had survived this operation. Tenon had reported seventy cases at Hôtel Dieu, which had presented themselves since those previously noticed by Caspar Bauhin, at the end of the 17th century; and Michel and Weideman have reported many successful cases.

Baudelocque, out of 111 Cæsarean operations, saved 48 patients.

In my next letter, I will report the progress of this discussion, as well as give a general sketch of the progress of medicine in Paris.

Paris, *March*, 1855.

ART. III.—*Lecture on the Modes of Death and the Therapeutics in Diseases of the Spinal System.* By MARSHALL HALL.

GENTLEMEN: In my lecture of yesterday, I explained to you *two* modes in which spinal seizures may issue in death: the first, by apoplexy of the medulla obologata and paralysis of the pneumogastric nerve; the second, by shock on the heart; the former, somewhat slowly—the latter, suddenly.

There is another mode of death in epilepsy. It is the result of sheer nervous exhaustion, from the rapid or constant repetition of severe paroxysms.

This subject will be best illustrated by an experiment:

I divided the cerebral from the spinal centre in this frog, and then dropped on its surface a few drops of a solution of the acetate of strychnine. It has become affected by the poison: the least touch, the least jar of the table throws it into a tetanoid paroxysm.

If I avoid excitement, the animal survives in its state of strychnism for a long time. But if I continue to repeat the excitation, the excitability and life soon become extinct.

I will suppose the frog without injury, but placed under the influence of strychnia; if it be secured from all excitation, it recovers; if it be exposed to repeated excitation, it dies.

So it is in the dog.

Even in tetanus in the human subject, I believe some patients would recover if preserved absolutely from excitation, who die under its exhausting influence.

The same event occurs in epilepsy. In a case detailed in the Lancet by Dr. Bucknill, in which tracheotomy had been performed, and in which, therefore, laryngismus had lost all its baneful influence, the patient died of pure exhaustion, "distinctly not of coma."

Death from nervous exhaustion must therefore be added to the other forms and modes of death in epilepsy.

There is still another source of danger and of death in epilepsy. It arises out of trachelismus assuming the form of torticollis, and attended with twisting of the body.

Some time ago a medical student, affected with epilepsy, called on me, and whilst we engaged in conversation, uttered a fearful cry, became affected with twisting of the neck and body, and would have fallen had I not held him forcibly on his chair.

The next morning he was found dead in bed, with his face buried in his pillow!

He had doubtless had a fit in the night, which, assuming the form I had observed and have described, turned him in bed.

In this manner a patient has been suffocated in a fit of epilepsy, the face being found literally buried in the soft soil of a newly-ploughed field, or submerged in shallow water.

Such, then, are the principal modes of death in epilepsy. Another topic which I must discuss briefly before I enter on the subject of the therapeutics of the spinal system, is, the mode and degree of recovery from attacks of epileptic or convulsive affection.

An epileptic fit probably ceases frequently from nervous exhaustion of the spinal centre, just as we observe the tetanoid spasm cease in the frog affected with strychnia.

From this exhaustion reaction usually takes place, and the spinal centre passes into a state of undue excitability, just as re-action follows repeated attacks of syncope in cases of loss of blood, passing into excess.

In this condition of excessive excitability, the slighter causes of the epileptic seizure are usually but too operative. It constitutes indeed, the continued *predisposing* cause of epilepsy.

This undue excitability of the spinal centre is by no means incompatible with a shattered condition of the general system; and therefore we frequently observe the epileptic patient pale, thin and feeble, though in other cases there are a florid complexion, a robust form, and much muscular power.

Besides the spinal centre, the cerebral centre is apt to be affected in severe epilepsy, and the patient is left comatose, maniacal, or with loss of memory or intellect. These events appear sometimes to depend entirely on intra-vasicular congestion, and sometimes on effusion, ecchymosis, softening, or other lesion.

You will not, gentlemen, be surprised, that from *any* mode of treatment we look for success, not in cases with organic lesion, or of inveterate standing, but in the comparatively recent cases of excentric inorganic origin, and still without organic change.

Now let us consider what may be accomplished in the treatment of epilepsy or other convulsive disease.

Once more I beg your attention to my Table. Look at this list of *causes*. The first part of our treatment depends on carefully avoiding all these.

The excitement, the irritation must be, as far as possible, avoided. The morbid condition of the blood must be remedied. A low posture and deep sleep must be carefully shunned. The neck must be cautiously guarded against a tight collar.

One event we must constantly suspect: an undue acidity in the stomach. Against this, the bicarbonate of potass is the present remedy, and should be taken on every recurrence of a threatening symptom. Many patients have carried about with them a solution of twenty-five grains of this bicarbonate in two ounces of water, and taken it in such circumstances with the greatest advantage.

Another event to be suspected is the formation and retention of scybala in the colon. These are only effectually removed by an enema of three pints warm water, slowly administered. But in this manner, too, the threatened attack has been averted.

One patient succeeded in replacing an attack by a fit of vomiting, taking for that purpose, on any threatening, half a drachm of ipecacuanha. To this I have sometimes *added* an equal quantity of the bicarbonate of potass.

The bowels should be kept well relieved daily; but I have known a dose of purgative medicine constantly to produce a seizure.

One patient took many remedies empirically. None did good. But the turpentine acted injuriously.

Of all our remedies none is more important than a well-regulated, simple, digestible, nutritious diet.

Against the undue excitability of the spinal centre in epilepsy, well-appointed walking exercise is the specific remedy. But *effort* or *fatigue* adds to the evil.

I think there is as the cause of sleep a latent trachelismus. The usual posture during sleep is the recumbent. Both these must conduce to the epileptic seizure. I have constantly recommended a posture during sleep at an angle of fifty degrees. And I think that I have seen advantage from gentle movements and noises in the patient's room during the first sleep, to prevent deep sleep.

All empirical remedies may be safely discarded. It is very improbable that *any* individual agent should be able to accomplish all that is required in a case of epilepsy. We may well ask, now that this malady is well understood, why epilepsy should be treated empirically more than apoplexy, or than infantile or puerperal convulsion?

It has appeared to me that the hyoscyamus may allay the nervous excitability so frequently observed in epilepsy. As a little spirit obviously does good in the undue cerebral excitement of delirium tremens, I have thought that minute doses of strychnia may be useful in the undue spinal excitability in epilepsy. For the organic changes induced by epilepsy, mercury is the remedy.

You will observe, in the Table, that after enumerating the remedies which I have briefly noticed, I have asked, is there any *specific* remedy in epilepsy? I am compelled to answer, No! And I must add, that the sooner the profession cease from this derogatory mode of prescription the better, and the more honorable. Zinc, copper, silver, valerian, the cotyledon, the sumbul, are all given in vain.

We must discard empiricism, and treat epilepsy as we do other diseases, on rational principles, tracing causes, effects, and, in a

word, every link of the formidable chain, and act on science and common sense.

I must now, gentlemen, retrace my steps, and take up one of the topics which I have noticed briefly, and treat it at greater length. This topic is—*laryngismus*, and its remedy, and the remedy against its effects—*tracheotomy*.

I have already noticed the two kinds of laryngismus which occur in the first and last stages of a severe epileptic seizure, respectively —the *first* being *spasmodic;* the *second, paralytic*.

The former frequently closes the larynx perfectly, and a *breath-struggle* is superadded, or there is simple suspension of respiration; the neck, face, eyes, become turgid and purple, the intra-cranial tissues being equally congested.

In proportion, in some degree, to this congestion is the damage inflicted on the cerebral faculties, coma, mania, dementia, being the melancholy effects—the lunatic asylum or the work-house the melancholy doom.

All these are averted by timely and efficient tracheotomy.

I would strongly urge you to seize some opportunity, during the period of your studies—for I am addressing myself to the younger part of my audience—to witness and write down accurately, the phenomena of the epileptic seizure. It is *not* in any or every kind of epilepsy that I recommend tracheotomy, but solely and exclusively in the *epilepsia laryngea*. It is *not* for epilepsy, but for *laryngismus*, that tracheotomy is proposed.

It is necessary to state this emphatically, for a feeble and malevolent critic has either misunderstood or misrepresented this matter.

We must begin, in the administration of this, as in that of all cases of important remedies, by a most careful and accurate *Diagnosis:*

1. The efficacy of the remedy is precisely proportionate to the degree of laryngismus and its effects;

2. The hope from the remedy is proportionate to the earliness of the period at which it is performed;

3. By the institution of this remedy, the *laryngeal* and most fearful form of the disease is *changed* into some milder or *abortive* form; or,

4. The seizures may cease, or decline and cease, altogether. The former was the happy result in the most interesting case of Mr. Cane.

There are many cases of epilepsy in which tracheotomy would be inappropriate. It would be inappropriate in cases involving *organic lesion*, original or induced, and in cases already become *inveterate*. It would be wrong to institute this operation in cases beyond *hope* of benefit; in the cases already deemed *incurable;* and therefore in most of the cases consigned to the lunatic asylum or the work-house. In these, all that we ought to expect from this, or any remedy, is some *mitigation* of so dire a calamity.

In the cases in which tracheotomy has been performed, this preliminary *diagnosis* has not always been instituted. The result has been precisely what ought to have been anticipated; yet it has been such, when duly weighed and considered, as to confirm and raise all my hopes from this important and heroic remedy in this Herculean malady. In some the fits have been mitigated a hundredfold; in several a failing intellect has been greatly *restored*, the occupation of the patient, necessarily relinquished, being resumed!

I proceed to notice the second or *paralytic* laryngismus. This is the result of a severe attack of epilepsy—always, I think, the epilepsia laryngea. The trachelismus, the laryngismus especially, the breath-struggles, have congested the cerebrum, and left a deep coma; with this, stertor or paralytic laryngismus has been combined—an event which *reacts* on the cerebral centre, augmenting the coma and the stertor. The patient is frequently seen to be in hourly jeopardy of his life from asphyxia. The countenance is livid, the viens of the neck distended, the integuments tumid. The respiration becomes more and more impaired and stertorous. A diffused bronchial rattle establishes itself.

The form of the asphyxia is, as I have already stated, twofold, laryngeal and bronchial; at first laryngeal, afterward both laryngeal and bronchial.

If tracheotomy be now efficiently instituted, the laryngismus is disarmed of its danger. The lividity of the countenance, the distention of the veins, the tumefaction of the integuments disappear *à vue d'œil*. The respiration is free; the danger from *laryngeal* asphxia averted!

I need scarcely repeat, that if this tracheotomy be not only efficiently but timeously performed, the patient's life is saved. But if the operation be delayed, it will be performed too late: if the bronchia have become clogged and choked with mucus, it will assuredly be performed in vain. The patient, however, rescued from *laryngeal*, will succumb to *bronchial* asphyxia.

These observations do not relate to epileptic coma or apoplexy alone, but to *simple* apoplexy in all its forms; that so well described by Abercrombie, the apoplepxy of deep intoxication, of narcotic poisons, &c. It is the present remedy, and, if timely instituted, the effectual remedy, for the laryngeal asphyxia in all these cases!

Gentlemen, do not these views excite a deep interest in you? Examine them; judge them *for yourselves;* and be not misled by the ill-natured criticism of any superficial observer or thinker, who leaves *diagnosis* and every other just consideration neglected, and wonders that a fistula left by a cut-throat, is not a remedy for—laryngismus, and its effects? No! but—for epilepsy!

Having thus stated in *what* circumstances tracheotomy may be available in epilepsy, I will now beg your attention to that which I finally regard as the simplest, the safest, *mode* of performing it.

I present you with a pair of sissors, so ground at the point as to leave a notch, I propose that, having selected the point of the trachea at which the orifice should be made, you take up a fold of integument over it, and, by means of the scissors, make a vertical incision; that the scissors be now turned one-fourth round; that their points, brought together, be made to pierce the trachea, and then be separated, so as to *stretch* the tissues. and make an orifice of the proper extent.

The points of a little wire *cage*, such as I now show you, made of the proper size and strength, are then to be brought together, pressed into the orifice, and allowed to expand to the proper extent, in their turn; this being limited by a thread properly attached to it, and placed round it.

Not a minute of time, or a drop of blood has been lost, no danger has been incurred, and yet—the operation is performed!

The cage admits of being compressed, and easily removed, washed, and restored. No veil of viscid mucus will obstruct its aperture in any part, and the danger arising from such obstruction, hidden from observation, but detected by Dr. Edwards, will be effectually averted—a danger which I believe to have existed in many cases in which the ordinary *tube* has been long worn.

I will now, gentlemen, very briefly revert to the cases of epilepsy in which tracheotomy has been used. Mr. Cane's was the first, and the most splendid: life was immediately saved, and the fits were afterwards averted. Life was saved from a present danger in Dr. Herrick's and Dr. Williams' cases. The fits were reduced to a

very mild and abortive form in Dr. Edward's and Dr. Bucknill's cases.

Every event occurs to encourage the *benevolent* inquirer.

There are other applications of tracheotomy.

The patient afflicted with hydrophobia has hitherto fallen a victim to *laryngeal asphyxia* and to *nervous exhaustion*. If tracheotomy were performed the instant the *diagnosis* was made, the patient would *not* die, as he has hitherto, of this laryngeal asphyxia. Query, would he necessarily die? If the patient were, further, protected absolutely, like the frog rendered tetanoid by strychnine, from causes of excitement, he *might not* die of nervous exhaustion. Query, is it possible that even the poison of hydrophobia may be, if life were prolonged, as by tracheotomy and security from excitation, eventually eliminated from the system, and life saved?

There is still greater hope of good from these measures in certain cases of *laryngeal* tetanus. My friend, Dr. Webster, once performed tracheotomy in a case of this kind. The benefit was so marked as only to lead to a regret that it had not been performed earlier.

You will find in a paper which I published in The Lancet about two years ago, a *list* of cases in which tracheotomy might be necessary. It is of considerable extent. It demonstrates the value of this remedy, and the importance of being *prepared* to perform it; for almost *all* these cases requiring it are cases of *emergency*, life being in jeapordy. All that is really required is a pair of pointed scissors and a teaspoon! The former may keep the orifice patent horizontally, the latter vertically, until better instruments are procured—and life is spared: indeed, the very issues of life are in some instances fearfully held, as it were, in our fingers!

Here the lecturer paused, but shortly added,—Gentlemen, I thank your kind invitation to give these lectures, and for your kind attention to them. I trust the three hours have not been spent in vain, and especially that the younger part of my audience will long remember with advantage the principles of medical doctrine which I have inculcated.

The lecturer having been invited to take the chair, Mr. Wilson rose and said that he should propose a vote of thanks to Dr. Marshall Hall for the kindness and courtesy he had shown in coming amongst them to communicate information, illustrated by experiment, concerning the physiology and pathology of the nervous system, which it had been the great pursuit of his life to investigate.

The students of the Chatham-street School of Medicine should, indeed, regard the present occasion as *red-letter days*. As for himself and the rest of his professional brethren who had attended this course of lectures, he could say with confidence that they deeply appreciated the philosophic views of Dr. Marshall Hall; and when they contemplated the state of nervous physiology as it was in their own early day, and looked at it now, they must be greatly impressed with the debt of gratitude due to those eminent men who had so perfected this branch of science; foremost amongst whom he had no hesitation in placing their distinguished visitor. He concluded by moving the cordial thanks of the assemblage to Dr. Marshall Hall.

Dr. Noble had great pleasure in seconding the motion so justly and so appropriately submitted by Mr. Wilson. Thanks, certainly, were eminently due to their distinguished visitor for his kindness in coming amongst them, and in thereby giving to the gentlemen present an important advantage. They had not only had the gratification of meeting the propounder and discoverer of great physiological truths, but that, also, of listening to his own exposition of them, and of witnessing some of the experiments and demonstrations by which they are substantiated. And here he would observe that, however accurately such doctrines might be learnt from books, by the aid of diagrams, and by repeating the experiments, there was always an especial benefit in drinking in knowledge and valuable precepts at their spring. Look at certain analogies in literary experience. How clear and effective was the appreciation of history by him who had gone for his knowledge to the sources,—to the old quartos and the big folios, instead of to modern duodecimos! He could speak with gratitude of his own experience. He supposed it was some twenty years since that he had first applied himself to the physiological discoveries and practical teachings of Dr. Marshall Hall; probably he soon acquired a fair appreciation of their nature and value. Seven or eight years ago, however, he had had the privilege through Dr. Hall's kindness and courtesy, of witnessing at that gentleman's own house a long series of experiments made by him, and for several days of conversing with him upon all the allied topics; and from this experience he could tell how much more clear and decided was the apprehensions of facts and conclusions learnt in this way. The brief course of lectures now terminated had, in some measure, furnished the students, and the numerous

practitioners who had attended the course, with a similar advantage. He was sure that they would feel as he had felt, in having been so privileged, delighted to have been taught the physiology, and much of the pathology, of *the Spinal System* by the eminent mind that conceived the same; and to have had demonstrations presented to them by the hand that first brought them out. For all these reasons, it was with pleasure, sincerity and pride, that he seconded Mr. Wilson's motion.

Dr. Marshall Hall then rose and thanked the mover and seconder of this vote of thanks; and, after briefly observing that nearly a quarter of a century had elapsed since he first began the studies which led to the detection of *the Spinal System* urged the students present to pursue their profession with enthusiasm, and early to select some special subject for study and investigation. Such a proceeding was sure, in due time, to bring its reward in reputation and in practice.—*London Lancet.*

ART. IV.—*Poole's Case.* By Dr. CARNACHAN.

On the 27th of February, 1855, I was called in consultation to see William Poole, a young man aged 33 years, of unusually athletic form and muscular development, who had been wounded two days previously in an affray with fire-arms. He had received a bullet wound in the outer aspect of the right thigh, two inches above the upper border of the patella. The wound, however, which created alarm among his friends, was situated upon the anterior wall of the thorax, about three-quarters of an inch to the left of the mesial line, and about half an inch below a line drawn across the chest, from one nipple to the other. A bullet probe could be passed slantingly from right to left, along the track of the wound, for about an inch. At this depth, the probe was arrested, and it was not thought expedient to use force in making further exploration. Poole received his wounds during a deliberate onslaught made on him by some five or six persons, armed with Colt's revolvers. The first ball took effect on the right thigh, and brought him to the ground. While thus prostrate, another assailant placed the muzzle of a pistol close to his chest, and discharged its contents. He immediately jumped up, and reeling towards a door, rested, as if stunned, against it for support, during some minutes. He then fell, exclaiming that he was dying,

and remained senseless, cold, almost pulseless, and apparently moribund, for about four hours. From this condition he rallied, and became so free from the usual symptoms of severe injury, that his medical adviser, Dr. Putnam, considered that the ball had not really penetrated into the thoracic cavity, and my opinion was sought to corroborate or dispel this favorable view of the case.

I found him sitting up in bed, his back resting on pillows for support, apparently at ease, and conversing with numerous acquaintances who had come to visit him. His countenance exhibited no expression of anxiety, and he answered placidly and without effort the questions I put to him. His pulse was 80 in the minute, the respiration easy, the surface of the body normal in temperature and moist. The stethoscope revealed the existence of no difficulty in the respiratory passages, and the normal *Tick Tac* of the heart beat with healthy precision. There were no signs of inflammation or of effusion into the pericardium.

With such freedom from morbid symptoms, I was disposed to concur with his medical adviser in auguring favorably of the case; for although it might be inferred from the general character of the wound, that the ball had passed somewhere into the cavity of the chest, it was not impossible that it had become lodged in some position, where it remained innocuous.

The previous treatment had been gently antiphlogistic; mild aperients, diaphoretics, acidulated drinks and low diet. The consultation resulted in a continuation of a similar mode of treatment, with an injunction that he should be kept in a state of absolute bodiy rest, and free from every cause of mental excitement, as I felt far from certain that he had not sustained mortal injury.

The symptoms in Poole's case illustrate in a remarkable degree some of the peculiarities of wounds in the heart, and also the assertion made by Hervey, that the heart is not very sensible. I am informed by Dr. Putnam, who saw him at one o'clock on the morning of the 25th, about fifteen minutes after the wound was received, that the patient was at first nearly pulseless, was insensible, and that respiration was performed with great difficulty. In this condition, laboring also under the ordinary signs of shock to the system from a gun-shot wound, he continued for about four hours, before any signs of reaction were manifested. Vomiting now occurred; this was followed by increased action of the heart, and sensibility gradually returned.

During the same day (25th) he continued improving, and on the evening visit, the pulse beat 84. The skin was moist and natural, tongue healthy, with no unfavorable symptoms otherwise. No external hæmorrhage had occurred from the wound, nor had any evidences of internal hæmorrhage been evinced by vomiting or expectoration.

Monday, 26th. The wound was examined more particularly, and no traces of the bullet could be found, or any special indications manifested of its presence in the cavity of the thorax. Symptoms about the same.

Tuesday, 27th. I saw the patient for the first time, and found him in the favorable condition already stated.

Wednesday, 28th. Complained of slight headache; pulse 86; bowels not having been moved, a gentle aperient was ordered, by which the pain in the head was relieved. At times the patient had complained of transient and slight pain about the region of the heart.

Thursday, March 1st. Was called in to see patient a second time. Had slept well; pulse 80; respiration natural; appetite good; skin moist; action of the heart natural. He stated that he felt no pain or unpleasant symptom except weakness, remarking, however, that he felt well enough to go out.

Friday, March 2nd. The patient perfectly comfortable; pulse 82.

Saturday, 3rd. Patient so well that, upon visiting him, for the third time, by request, he was found receiving his friends, and, contrary to previous injunctions, conversing freely with them. Enjoined repose.

Sunday, 4th. No untoward sign connected with either the functions of circulation or respiration. During the day, he received, against positive orders, the visits of more than a hundred people, with whom he conversed. His own statement was that he felt quite well.

Monday, 5th. Dr. Putnam was sent for early in the morning. At eight o'clock, A. M., the patient was found in a high state of irritability; pulse 120; skin hot and dry, and complains of pain generally; respiration troubled, and more frequent. An aperient was ordered, by which the symptoms were much alleviated.

Tuesday, 6th. Was again requested to see patient. Pulse 100; countenance anxious; the adnata tinged yellow; complained of debility, but said he had no pains about the heart; signs of effusion.

Wednesday, 7th. Passed a restless night, notwithstanding the administration of an anodyne: pulse 120; countenance more anxious; respiration much troubled; inability to remain in a recumbent posture; symptoms gradually becoming more grave.

At two o'clock, A. M., Thursday morning, his attending physician was sent for. The patient was now rapidly sinking; pulse almost imperceptible, and with difficulty counted; respiration short, frequent, and difficult; extremities cold; countenance pallid and hippocratic. From this time he continued to sink, and expired without a struggle, at five o'clock.

Autopsy seven hours after death.—The body was in a state of perfect preservation, and showed a powerful and well-developed organization.

The surface of the body presented three orifices of gun-shot wounds; two on the external side of the right thigh, a short distance above the patella, by which, apparently, a ball had made its entrance and exit, respectively; and one on the anterior aspect of the chest, three-quarters of an inch to the left of the median line, and about half an inch below a line drawn across the chest, from one nipple to the other. The examination revealed that all the organs of the body were in a healthy condition.

The sternum and cartilages of the ribs having been partially elevated, a bullet probe could be passed without difficulty, slanting from right to left, through the wall of the thorax, at the place of junction of the cartilages of the fifth and sixth ribs with the margin of the sternum.

The sternum being completely elevated, the pericardium was seen to be much distended, and on its surface, in continuation with the external wound, was observed a rough spot, which proved to be an opening into the cavity of the pericardium, thinly closed by the exudation of plastic material.

The right and left cavities of the pleura were free from effusion, and the lung on each side was in a sound condition. The pericardium was found filled with serous fluid, tinged with blood, and was so distended that it encroached very much upon the lungs on both sides. Upon opening the sac of the pericardium, and removing the large quantity of serous fluid, the external surface of the heart and serous lining of the pericardium were both found to be entirely covered with plastic exudation. A cursory examination of the heart in position did not disclose the presence of any foreign body. It was afterwards

taken out, and upon a careful examination, a bullet one inch in circumference was found enveloped in a delicate cyst, and imbedded, to the depth of a quarter of an inch, in the muscular tissue of the septum, between the right and left ventricles. Its locality was only indicated by the sense of touch, for as the wound had entirely cicatrized, there was no outward visible sign of its presence. Obviously, the cause of death was inflammation of the pericardium and heart and its results.

This case is one to be added to the few already on authentic record showing that penetrating wounds of the heart are not always immediately mortal.

It has, moreover, peculiar features which will render it remarkable in the annals of surgical pathology.

Several cases are mentioned, in which patients have survived one or more days the effects of penetrating and non-penetrating wounds of the heart, inflicted by cutting instruments, and also of non-penetrating wounds inflicted by *gun-shot*.

But the peculiarity of this case is, that although the wound was a penetrating gun-shot wound, leaving the ball deeply buried in the tissue of the heart, but rested on its surface, partially encroaching upon the muscular wall of the heart, and enfolded partly by the pericardium.

The autopsy of this case also revealed, that the wound was not only closed and cicatrized, but that a cyst was in process of formation around the ball.

By this case, also, it is established, that hæmorrhage is not necessarily a consequence of a gun-shot wound of the heart; for the serum found in the pericardium was merely tinged with blood, and there was no coagulum. The absence of hæmorrhage may be accounted for by the conical shape of the ball, and by its direction, two circumstances which favored its passage between the muscular fibres of the superficial layer of the heart, without severing them, and caused it to rest slantingly behind the anterior coronary artery, without wounding it.—*New York Med. Monthly.*

No. 2, *Waverly Place*, 20th March.

ART. V.—*Death from old age, or Natural Death.*

The following account of death from old age, by the distinguished divine, Dr. A. L. P. Green, of Nashville, will be read with great interest by every student of nature. The death of Aunt Phillis, as the Doctor expressed it, was indeed a "natural death," for death from disease is not according to nature, but might truly be classed under the head of "accidents," or "casualties."—*Ed. Nashville Medical Journal.*

DR. EVE — Dear Sir: I promised you that I would furnish you with some of the facts connected with the last days of Aunt Phillis, an old negro woman of mine who died last fall. Aunt Phillis was at the time of her death, at the lowest estimate, 111 years old and the probability is that she was several years older. For fifty years she has enjoyed uninterrupted health, and as far as I have been able to learn, she was never sick in her life except at the birth of her children. For thirty years of her life, and down to within three years of her death, she did not seem to undergo the slightest change in her appearance, time exercising little power over her. The first sign of decay was that of sight, which took place about three years before her death; up to that time she was in the full enjoyment of all her senses, and at 104 years would have married an old negro man of 75 if I had not objected. Her sight failed not in the usual way, but she became near-sighted, not being able to see objects at a distance. Soon after this, her hearing declined, but up to the time of her death she could still hear better than old persons generally do. The first indication of mental failure was that of locality, she not being able to find her way to a neighbor's house, yet her memory seemed perfect in all other respects. She recollected her friends and old acquaintances, but could not find her way to their houses. I at first supposed that this was owing to defective sight, but on examination found it was in the mind. Still her locomotion was good—she had the full use of herself, and could walk strong and quick like a young person, and held herself up so straight that when walking from me I often took her for some of the younger servants about the premises. The next, and to me the most singular sign of decline, was that she lost the art of walking—not that she had not strength to walk, but forgot how to walk. The children would lead her forth and interest her for a while, and she would get the idea which seemed to delight her very much, and she would walk about the yard

and porches until some person would tell her she had walked enough —but she would no sooner take her seat and sit for a few moments, before all idea of walking would be gone; and she would have to be taught over again. At length she became unwilling to try to walk unless she had hold on something; take her by the arm and she would walk, and walk well, but just as soon as you would let her go she would stop, and if no further aid was afforded her she would get down and crawl like a child; and at length became so fearful that she refused to walk altogether, and continued to sit up during the day, but had to be put to bed and taken up like a child. After a while she became unwilling to try to get up altogether, and continued to lie until she died. All this time she seemed to be in good health, took regular meals, and her stomach and bowels were uniformly in good condition. I often examined her the best I could, and she had no pains, no sickness, no aches of any kind, and from her own account, and from all that I was able to learn, she was in good health and all the while in fine spirits. The intellect and the mind seemed to be perfectly good, only that she did not seem to know where she was all the time. At length one of the children said to me that Aunt Phillis was getting cold, and on examining her I found it even so; the extremeties were cold; still she took her regular meals, and did not complain of anything, and the only change that I recollect of, was that she slept a little more than usual. The coldness increased for two days, when she became as cold as a dead person. Her breathing began at length to shorten, and grew shorter and shorter till she ceased to breathe. Death closed in upon her like going into a soft, sweet sleep, and for two minutes it was difficult to tell whether she was breathing or not. There was no contortion, no struggle, no twisting of the muscles, but after death she might have still been taken, on slight examination, to have been in a deep sleep. So passed away Phillis — the only natural death I ever witnessed.—*Nashville (Tenn.) Med. Jour.*

ART. VI.—*Statistical Monthly Report of the Principal Operations performed in the London Hospitals.*

Lithotomy.—The case (*Case* 5) left under treatment last month has recovered. Number of cases, 4; recovered, 3; under treatment, 1.

Case 1. A boy, in good health, aged 12, under the care of Mr. Cutler, in St. George's Hospital. Two stones were removed, each of considerable size, and consisting of phosphate of lime, with lithic acid nucleus. Recovered. *Case* 2. A boy, aged 8, in moderate health, who had suffered extremely from the irritation caused by the stone, and whose urine was habitually alkaline. The usual operation was performed by Mr. Hawkins, in St George's Hospital, and a stone of moderate size removed. The nucleus consisted of lithic acid, and was surrounded by concentric rings of lithic acid, and lithate of ammonia the outer coating being of triple phosphate. The patient is doing well. *Case* 3. A man, aged 67, a farm laborer, stout, florid, and in good health, under the care of Mr. Cock, in Guy's Hospital. The usual operation was performed, and a large stone removed. Recovered. *Case* 4. A boy, aged 7, in good health, but who had suffered extremely from the stone, under the care of Mr. Cock, in Guy's Hospital. Recovered.

Lithotrity.—A man, aged about 54, is in the London Hospital, under Mr. Curling's care, on account of calculus in the bladder, on whom two lithotrity operations have been performed during the last month. Three years ago, Mr. Curling adopted the same measures, and succeeded in relieving him of all symptoms of stone, numerous fragments having been passed. He is the subject of a very much enlarged prostate, and habitually requires the use of a catheter.

Lithectasy (in the female).—Two cases have occurred, during the month, of operations for the removal of calculi from the female bladder. *Case* 1. A woman, aged 21, under the care of Mr. Fergusson, in King's College Hospital, admitted on account of symptoms of urinary iritation. It was found, on examination, that she had stone in the bladder, and that there was also a portion of iron-wire, on which probably the incrustation had formed, and one end of which projected into the vagina. Mr. Fergusson's operation consisted in incising the left side of the urethra to a sufficient extent to allow of

the removal of the stone (previously crushed), and of the wire. The latter proved to be a common hair-pin and had doubtless been introduced by the patient herself. The case remains under care.

Case 2. A child, aged 3, under the care of Mr. Hilton, in Guy's Hospital. She had suffered so extremely from the iritation, that it was at first feared she would not bear any operation. After a few week's preparatory treatment, the chief measure in which consisted of opiate enemata, her health was thought sufficiently restored, and Mr. Hilton removed successfully a large calculus. It was necessary to incise both sides of the urethra, but the wounds healed kindly, and the child left the Hospital well, and with perfect control over the bladder.

Herniotomy.—The case (No. 11) left under treatment by last month's report, has recovered.

Number of cases, 10; recovered, 5; under treatment, 3; died, 2.

Case 1. A woman, aged 47, under the care of Mr. Curling, in the London Hospital; hernia femoral; strangulation three days, sac opened. About a week after the operation, feces began to escape by the wound, and have since continued to do so. The patient is doing fairly, but yet under treatment. *Case* 2. An infant, aged 1 year, under the care of Mr. Adams, in the London Hospital. The hernia was of the inguinal form, but did not extent into the scrotum; strangulation had existed for about twenty-four hours. The incision through the skin having been made, and the upper margin of the external ring divided, the intestine slipped back spontaneously. The child recovered well. *Case* 3. A woman, aged 60, under the care of Mr. Erichsen, in University College Hospital. The hernia was femoral, and had been five days strangulated. The sac having been opened, it was found to contain some fetid pus, and a knuckle of intestine, in a gray and grangrenous condition; the stricture was accordingly freely divided, and the bowel left *in situ*. The after-treatment consisted in the application of poultices to the part, and the internal exhibition of opium. Shreds of slough soon after began to separate, and, on the fourth day, the bowel gave way, and feces began to escape in the wound. On the seventh day, motions began to pass by the anus, after which, the discharge by the wound gradually diminished. The healing process was complete on the twenty-fifth day, the recovery being perfect. *Case* 4. A woman, aged 65, hernia femoral; strangulation nearly three days; sac opened. Profuse suppuration from the sac followed, attended by symptoms of acute peritonitis,

from which the patient died on the fifth day. No autopsy. *Case* 5. A woman, aged 48, under the care of Mr. Hancock, in Charing-Cross Hospital, hernia femoral; strangulation 12 hours; sac opened; recovered. *Case* 6. A woman, aged 52, under the care of Mr. Callaway, in Guy's Hospital; hernia inguinal, and of small size; strangulation about 52 hours; sac not opened; recovered. In this case the whole tumour slipped up spontaneously as soon the margin of the external ring was cut. *Case* 7. A woman, aged 73, in Guy's Hospital, under the care of Mr. Birkett. She had, for many years, been the subject of an irreducible femoral hernia on the left side; the tumour had become larger, and there had been well-marked symptoms of strangulated bowel for about 16 hours previous to the operation. The stricture having been divided, external both to sac and to fascia propria, the bowel was easily reduced. More hemorrhage than usual followed the incision of the ring, but it was arrested by pressure. All symptoms of strangulated intestine ceased after the operation. The woman lived rather more than three days, and died apparently of bronchitis, to which she had long been subject. At the autopsy, no decided evidences of peritonitis could be found; in the left iliac region lay a portion of ileum about three inches long, which, from its appearing more congested than the rest, was judged to have been the strangulated part; its tissues were quite healthy. In the wound made by the operation was a clot of blood, which had probably proceeded from a vein, as no wounded artery could be discovered. The stricture had been divided external to the fascia propria, and the latter membrane was much thickened, and closely adherent to the peritoneal sac. The sac, the size of a small egg, contained a piece of omentum, which adhered to its neck, and a small quantity of dark-coloured fluid. Most of the organs in the body were in a state of fatty degeneration. The bronchial tubes contained much mucus. *Case* 8. A woman, aged 48, under the care of Mr. Stanly, in St. Bartholomew's Hospital; hernia femoral; strangulation four days; sac not opened; recovered. Mr. Stanly operated by means of a small incision, not more than three-quarters of an inch long. *Case* 9. A man, aged 79, under the care of Mr. Lawrence, in St. Bartholomew's Hospital; hernia scrotal, the size of two fists; strangulation thirty hours; sac opened; doing well. Eighteen inches of small intestine were exposed in a much discoloured state, but apparently sound; a mass of omentum weighing seven ounces was cut away. Some suppuration of the sac and phelgmonous inflammation

about the wound followed, but are now subsided. *Case* 18. A man of middle age, in the London Hospital: hernia scrotal; very large; of seven years' standing, but strangulated only half an hour; sac not opened; doing well.

Ligature of Arteries.—Case 1. A man aged 49, under the care of Mr. Curling, in the London Hospital, on account of a severe concussion, had a pulsating swelling form in the right orbit. The eye became pushed forwards, and vision much disturbed. There were all the signs of aneurism, and the conclusion arrived at was, that in the accident some injury had been inflicted on the trunk of the opthalmic artery, which had led to its ultimately giving way. The tumor rapidly enlarging, Mr. Curling decided to place a ligature on the common carotid artery. The operation was successfully performed. Immediately afterwards the man lost all sight in the eye, but within a few days afterward the faculty gradually returned. The recovery was perfect, all signs of tumor disappearing, and the eye having sunk back into its proper site, and regained its function completely. Case 2. A woman aged 30, admitted under the care of Mr. Hancock, into the Charing-cross Hospital, on account of an injury over the wrist. To arrest the bleeding, pressure was used, but repeated attacks having made it evident that the ulnar artery was wounded, Mr. Hancock cut down upon that vessel, and tied both ends at the seat of injury. The operation was done a week after the accident, and the patient recovered well.

Trephining of the Skull.—The following case occurred in Guy's Hospital, under the care of Mr. Birkett. A boy aged 7, was admitted with the account that a carriage-wheel had passed over his head; but his scalp was not cut anywhere. Soon after admission, the symptoms of compression became so urgent that Mr. Birkett was induced to divide the scalp over some extravasated blood in order to examine the bone beneath. A fracture of the squamous portion of the right temporal bone, running into the parietal, having been discovered, the trephine was applied on its edge. No blood was, however, found between the dura mater and the bone. Death took place within a few hours of the accident. The *post mortem* showed extensive laceration and contusion of both cerebral hemispheres, and besides the fracture just mentioned, one extending into the petrous portion of the right temporal bone. There was no blood external to the dura-mater on either side.

Compression Treatment of Aneurism.—Mr. De Morgan's case, in the Middlesex Hospital, continues under care. Not much effect has as yet been produced upon the tumor. It is situated just above the popliteal space, between the hamstring tendons, and is about the size of an orange. The patient is a healthy, florid man, aged 60; he bears the treatment very well, and can now sleep with the compressor so tight as to quite arrest pulsation. Mr. De Morgan is applying light pressure over the sac itself. A man of middle age is under Mr. Cock's care in Guy's Hospital, for popliteal aneurism, on whom the compression plan is being tried. The aneurism was at first the size of a large egg, and now, after about a month's treatment, it has been reduced to that of a pigeon's egg, and has become more solid. It still, however, pulsates. The man is not able to bear quite continuously such an amount of pressure as arrests the pulsation entirely.

Amputations.—Of the cases left under care the following have ended fatally: Case No. 7, of the Report of March—The man had been much reduced by secondary hemorrhage a week after the operation, and death, which occurred in the twelvth week, appeared to be induced by exhaustion. Bed sores had formed, and there had been profuse suppuration from them. Of last month's Report, Case 5. Death from pyæmia fourteen days after the operation. At the *post mortem* secondary deposits were found in the lungs and liver. Case 11. Death about one month after the operation, well-marked symptoms of pyæmia having been present. With these exceptions the cases are either recovered or doing well.

Number of cases, 14; recovered, 1; under treatment 12; died, 1.

Of the Thigh.—Case 1. A boy of strumous diathesis, aged 8, under the care of Mr. Erichsen, in University College Hospital. Amputation through the condyles of the femur was performed on account of disease of the tibia following an injury, and involving both the ankle and the knee-joints; under treatment, and doing well. Case 2. A man aged 29, under the care of Mr. Stanley, in St. Bartholomew's Hospital. An operation on account of ununited fracture of the femur had been performed three months ago (see *Medical Times and Gazette* for April 22, page 406,) and had failed, leaving the man much debilitated by long suppuration, and with the parts in the condition of a compound fracture. There appeared no chance of recovery with a useful limb, and Mr. Stanley determined accordingly to remove it. Amputation was performed not much below the

great trochanter. No fewer than twenty-six arteries required ligature before the bleeding could be arrested, and, in spite of the care exercised in this respect, a slight attack of secondary hemorrhage occurred a few days afterward. The man has since done well, and may now be regarded as convalescent. Case 3. A boy aged 13, of strumous constitution, under the care of Mr. Stanley, in St. Bartholomew's Hospital, on account of necrosis of the lower part of the femur, involving the knee-joint. Amputation in the lower third of the thigh was performed, and the boy has recovered without a bad symptom. Case 4. A man, aged 40, in good health, under the care of Dr. Cutler, in St. George's Hospital, on account of chronic diseases of the knee-joint, which, although no abscesses had formed, prevented him from using the member. Doing well. Case 5. A boy, aged 14, under care of Mr. Cutler, in St. George's Hospital, on account of strumous disorganization of the knee. Doing well. Case 6. A man, aged 50, under the care of Mr. Paget, in St. Bartholomew's Hospital. Secondary amputation was performed two weeks after compound fracture of the tibia and fibula; under treatment.

Of the Leg.—Case 7, A woman aged 31, under the care of Mr. Paget, in Bartholomew's Hospital, on account of diseased ankle. A flap amputation in the lower third of the leg was performed, and her progress since has been good. Case 8. A man aged 23, under the care of Mr. Critchett, in the London Hospital; a strong and healthy laborer. Primary amputation after compound fracture. Under treatment.

Of the Foot.—Case 9. A girl, aged 16, in tolerable health, under the care of Mr. Cutler, in St. George's Hospital, on account of strumous disease of the metatarsus and part of the tarsus. Chopart's amputation was performed, and the stump promises to be a very good one. Case 10. A man of middle age, admitted under the care of Mr. Critchett, into the London Hospital, on account of severe compound fracture of the foot, in which the ankle-joint had been laid open, the femur on the same side being broken. With some difficulty the operator managed to obtain skin enough to allow of amputation at the ankle. The flaps afterwards sloughed away, leaving the bones exposed. The man, whose habits had been very intemperate, had, by the very free use of stimulants, been kept from passing into delirium, and his condition appeared promising, the stump being covered with healthy granulations. Nearly a month

after the first operation, it was decided to remove the projecting ends of the tibia and fibula, and the patient's consent to this measure was accordingly asked. The thought of a second operation seemed to annoy him very much, and he refused to submit to it. On the same evening, violent delirium set in, and continued till death, which took place three days later. At the *post mortem* the internal viscera were not examined; no phlebitis was discovered, but there was a collection of matter around the ends of the fractured femur.

Of the Upper Extremity.—Case 11. A man aged 25, under the care of Mr. Ward, in the London Hospital, on account of crushed hand. Primary amputation at the wrist-joint was performed. Doing well. Case 12. A man aged 31, under the care of Mr. Cutler, in St. George's Hospital, on account of contusion of the forearm. Gangrene resulted ten days after the accident, and amputation above the elbow became necessary. The patient remains under treatment. Examination of the arm showed the ulnar and radial arteries plugged with lymph. Case 13. A man of middle age, in the London Hospital; primary amputation through the forearm, on account of crushed hand. Recovered. Case 14. By Mr. Quain, in University College Hospital; amputation above the wrist, on account of an epithelial cancer on the hand. The patient, a woman aged 60, in good health, is going on favorably.

Excision of Bone and Joints.—The numerous cases of this class previously reported remain under treatment. During the month there have been performed the following: Case 1. Excision of the head of the femur, by Mr. Erichsen, in University College Hospital. The patient was a boy, aged 8, much emaciated, and in an advanced condition of hectic, from long-standing disease of the hip joint. The head and neck of the femur were found to be extensively diseased, and undergoing absorption; the acetabulum was also involved, and required to be gouged out. The patient has done well since the operation. Case 2. By Mr. Fergusson, in King's College Hospital; excision of the elbow-joint of a young man. The patient is under treatment. Case 3. By Mr. Paget, in St. Bartholomew's Hospital; excision of the elbow joint of a woman, aged 18. The patient had long suffered extreme pain in the joint, which treatment failed to relieve; the articulation was quite destroyed, and, among other measures, free incisions had previously been tried. After the excision of the diseased extremities of the bones, all pain ceased, and the case now promises a speedy cure. Mr. Paget did not make

the ordinary H-shaped incision, but omitted the inner one of the longitudinal cuts, believing that he obtained quite sufficient room without it. Case 4. By Mr. M'Murdo, in St. Thomas's Hospital; excision of the left half of the lower jaw on account of malignant disease. The patient was a cachectic man, of very nervous temperament, aged 28. The tumor grew from within the bone, which it had expanded; it was rapidly increasing. Mr. Simon made an examination of its microscopic characters after the excision, and pronounced it an example of the fibro plastic or myeloid tumor. The operation was attended by very little loss of blood. The patient did well for the first ten days, when he was attacked by erysipelas, under which he gradually sank, and death took place on the fourteenth day. No *post mortem* examination of the viscera was permitted. Case 5. Under the care of Mr. Birkett, in Guy's Hospital; excision of the astragalus. The patient, a boy aged 8, had sprained his foot some months previously, and, in spite of treatment, the disease had advanced till an operation became unavoidable. Under the influence of chloroform, Mr. Birkett examined the part and cut down upon and removed as much as practicable of the affected bone. Since the operation, the boy's health has improved, and there seems some chance of saving the foot.

Excision of Malignant Growths.—Most of the cases mentioned last month yet remain under treatment; none have ended fatally. During the month there have been performed—Case 1. In the London Hospital, by Mr. Adams; excision of the upper part of the ear of a man, aged 66, on account of epithelial cancer. Case 2. In St. George's Hospital, by Mr. Tatum; removal of large epithelial cancer from the lower lip of an elderly man. Case 3. By Mr. Quain, in University College Hospital; on account of epithelial cancer on the hand; amputation above the wrist. (See *Amputations.*) Case 4. By Mr. Lawrence, in St. Bartholomew's Hospital; excision of a mass of epithelial cancer, the size of a walnut, from the prepuce and side of glans penis of a middle-aged man; the disease was of eight week's duration; recovered. Case 5. By Mr. Lawrence, in St. Bartholomew's Hospital; removal of two-thirds of the scrotum of a chimney-sweep, aged 33, on account of epithelial cancer. One of the testicles was so involved that it was found necessary to remove it. The patient is doing well. Case 6. By Mr. Paget, in St. Bartholomew's Hospital; amputation of the entire penis of a man aged 39. The disease was of three years'

duration, and had formed in the cicatrix of an injury received in boyhood; recovered. Case 7. By Mr. Paget in St. Bartholomew's Hospital; excision of a scirrhous breast from a woman aged 46; recovered. Case 8. By Mr. Poland, in Guy's Hospital; excision of a scirrhous breast from a woman aged 35. Doing well. Case 9. By Mr. Cock, in Guy's Hospital, excision of a tumor of doubtful nature from the scalp of a boy, aged 14. The growth had rapidly reproduced itself after a former excision. (See Case 3, of last month's report.) In the last operation, Mr. Cock removed the pericranium, and a thin shell of bone has since exfoliated. It is hoped, therefore, that the whole has now been extirpated. The lad is nearly recovered, and appears in good health. Case 10. By Mr. Avery, in the Charing-cross Hospital, excision of a scirrhous breast from a middle-aged woman; recovered. Case 11. By Mr. Birkett, in Guy's Hospital; excision of the right half of the lower lip, on account of epithelial cancer. The patient, a man aged 62, had suffered from the disease for two years, and one of the submental lymphatics had become enlarged. Phlegmonous erysipelas of the pharynx occurred on the third, and caused death on the ninth day after the operation. At the autopsy, pus was found infiltrated in all the tissues of the pharynx; the enlarged gland had softened in the center. None of the internal viscera were affected with cancer. Case 12. By Mr. Birkett, in Guy's Hospital; amputation of the penis immediately behind the glans, on account of epithelial cancer. The patient was a man aged 67, *not* the subject of congenital phymosis. The disease had begun on the lining of the prepuce, which latter it had perforated, and then formed a sprouting wart-like growth on the outer side. The surface of the glans was only superficially involved. Recovered.

Removal of Non-malignant Growths.—Nearly all the cases mentioned in the last report have recovered. In Mr. Birkett's case of epulis, a second operation has been performed for the removal of a small portion which had probably escaped on the first occasion.

During the month, there have been performed Case 1, by Mr. Birkett, in Guy's Hospital, removal of a testis under the following circumstances: A man, aged, 33, had, for three months before admission, noticed his right testicle larger than the other. Subsequently fluid effused, and he had been twice tapped for hydrocele. When he applied to Mr. Birkett, there were evidences of the presence of fluid, and a trocar then introduced drew off about a half an ounce

of serum. Hoping that the disease might prove hæmatocele, the operator laid open the cavity of the tunica vaginalis. This was done by a free incision, and the testis exposed. The tunica vaginalis was seen to be entire, and expanded over a large growth within it. An incision having been made into it, a fleshy mass was exposed and immediate extirpation of the whole gland was accordingly performed. The disease proved, on further examination, to be a fibrocystic tumor, about the size of an egg, surrounded by a firm fibrous cyst, and inclosed the expanded gland structure of the testis. The cord was quite healthy, and the testis, excepting from its expansion by the growth within it, did not appear diseased. Mr. Birkett made his incision in the integument more posteriorily than is usually done, in order to allow of the more easy escape of the purulent discharge. The healing process was completed without drawback. Case 2. By Mr. Stretton (house-surgeon,) in St. Bartholomew's Hospital; excision of a small, painful, subcutaneous tubercle. In microscopic character the tumor appeared to be simply cartilaginous. The patient was a woman aged 42. Recovered. Case 3. In St Bartholomew's Hospital, by Mr. Lawrence; removal of an exostosis about the size of an egg from the inner side of the femur at the beginning of its lower third. The patient was a young woman, and had known of its existence for three years. Recovered. Case 4. By Mr. Birkett in Guy's Hospital; removal of a growth of doubtful nature from the right mammary gland of a single woman, aged 37. It had been known to exist for six months, and, in June, 1851, Mr. Birkett had excised a similar one from the same part. Both the tumors were circumscribed and moderately firm. In neither were the elementary structures of their arrangement similar to those of any form of cancer. Besides the above, fatty tumors in two cases, and encysted in four, have been successfully operated on.

Tracheotomy.—In a case of croup, in a child aged 10, by the Physician's Assistant, in University College Hospital. The operation was performed on the second day of the disease, and afforded relief; but the child ultimately died of pneumonia, with extension of croupal inflammation down the trachea.

Art. VII.—*Food and Digestion.*

Grunewald and Schroeder made their observations on a peasant woman affected with fistula of the stomach. The woman was otherwise healthy, thirty-five years of age, weighed 53 kilogrammes, and was, at the time of observation, nursing a child; the fistula existed for two or three years, and was caused probably by a perforating ulcer of the stomach. The *quantity* of gastric juice, after abstraction of the saliva (65 grammes per hour) was computed at 584 grammes (= 10 oz. nearly) for every hour, or 14,016 kilogrammes (= 34¾ imperial pints nearly) for the day, which is about the fourth part of the weight of the whole body, a proportion much larger than that given by Bidder and Schmidt (6·4 kilogrammes for an individual weighing 64 kilogrammes;) 1 kilogramme of weight of a man would secrete, according to this calculation, 264 grammes (=8½ ounces nearly) of gastric juice in twenty-four hours. The smallest proportion was obtained in the morning (state of fasting,) being, however, even then not less than between 40 and 400 grammes per hour. The fluid collected at this time was, in general thin, serous, colorless, and clear; at other periods it was more viscid, containing sometimes bile, without any accompanying signs of functional derangement; not rarely scarcina was detected in it by aid of the microscope. As regards the *chemical constitution*, according to the examination performed by C. Schmidt, the fluid obtained at an early hour of the morning (state of fasting) was either neutral or slightly alkaline; after the ingestion of food it was always acid. *Hydrochloric acid* was not found in any of the analyses of the various portions of the gastric juice secreted at different times of the day, but *butyric* acid, and the presence of *lactic* acid became highly probable.

The organic substances consisted of coagulable albuminous substance (pepsin,) sugar, butyric acid, uncoagulable proteinaceous substances, and lactic acid. The organic acids are not considered as originally present in the secretion of the stomach, but as products from the ingested aliments; they are changeable in quantity according to the quality of food. The hydrochloric acid, on the contrary, was considered as an essential component, although it is not exhibited by the analysis, probably on account of its being so easily bound by the alkalies of the saliva. In an analysis performed at a period, the results of which are communicated in the appendix, Schmidt

actually found free hydrochloric acid, but only in the proportion of 0.2 in 1000 parts—a proportion ten times smaller than in the dog. Concerning the question whether the gastric juice prevents the saliva from transforming starch into sugar (as asserted by Bidder and Schmidt) the authors found that the action of saliva is not annihilated; they confirm, however, the observaiton of Bidder and Schmidt, that no sugar is detected in the stomach of the dog even after the ingestion of boiled starch.

The digestion of *proteinaceous food* was examined by introducing weighed pieces of coagulated albumen, meat, etc., in thin linen bags through the fistula into the stomach, and observing both the loss of substance within a certain space of time, and the changes in the microscopic structure of elements. Thus it was found that, for proteinaceous substances, the dissolving power of the gastric juice of man is far inferior to that of the dog; their solution is completed in the stomach of the dog within two to four hours, in that of man it requires nineteen to twenty hours. Raw meat is better digested by the stomach of man than boiled meat, and veal better than beef.

Concerning the *microscopic alterations*, they found after one hour and a half the primitive fasciculi easily separable from each other, without change in themselves, the sarcolemma destroyed; after two hours and three quarters, the primitime fasciculi commenced to exhibit transverse fissures; after three hours, only transversely striated lamellæ were visible; after three hours and a half, besides the quadratic lamellæ, many primitive fasciculi, fissured in longitudinal and transverse direction, frequently dentated at the extremities; after three hours and three quarters, the primitive fasciculi twice or three times divided in the longitudinal direction; after four hours and a half, scarcely any solid remains left in the stomach, except some few primitive fasciculi much fissured in the longitudinal and transverse direction, still however, exhibiting the transverse striæ. After three and a half to four hours, the stomach is, in general, empty; the protenaceous substances become, therefore, subject to the influence of the entire secretion, etc. As regards the digestion of *fat*, the membrane of the cells was dissolved in the stomach; but the fat itself did not undergo any alteration. *Milk*, after three quarters of an hour, formed a thick coagulum, enclosing a large quantity of milk globules and free fat; after two and a half hours, the casein was seen partly as amorphous substance, partly in transparent, membrane

like pieces, with some unchanged milk globuli; after three hours and three quarters, scarcely any remains were left in the stomach.

These alterations, which required in the stomach of this woman three hours and three quarters to four hours and a half, were completed in that of a dog within two hours.

Finally, the authors allude to the great importance of the secretion of the gastric juice for the intermediate circulation of fluids and the intermediate change of matter, the principal object of which is to economise in the animal household, by prolonging the series of changes to which animal matter is submitted within the organism, and thus to render it for a longer time efficient in the discharge of vital processes. We find ourselves more compelled to adopt this view, as the quantity of the secretion amounted in this instance to one-fourth of the weight of the whole body.

Kroeger gives in his dissertation the results of some experiments performed with Prof. Bidder. Through a fistula in the pancreatic duct they collected the pancreatic juice during certain spaces of time, at various periods of the day, and under various influences. Concerning the quantitative relations, 1 killogramme of dog secretes, on the average, within twenty-four hours, about 893 grammes of pancreatic juice. According to this calculation, an adult man (weighing 64 kilogrammes) would secrete in twenty-four hours, 5·715 kilogrammes, i. e., nearly the eleventh part of the weight of the whole body. The ingestion of food exercises great influence over the secretion, the latter becoming much increased in quantity almost immediately after meals, reaching its maximum within about half to three-quarters of an hour after the meal, when it is about six or ten times larger than it had been just before the ingestion of food. Water has not the same effect: on the contrary, when taken simultaneously with solid food, it prevents the latter from causing so evident an increase. The concentration of the pancreatic juice appears frequently diminished in the same measure as the quantity is increased, but this phenomenon is not a consistent one; and, at all events, the absolute quantity of solid substances is greater after meals than before.

Concerning the physiological action of the juice, its power of transforming starch into sugar is not doubted. According to the author's experiments, 1 gramme of the fresh juice transforms within half an

hour, under the influence of a temperature of thirty-five degrees. C. 4.672 grammes of dry starch into sugar; as 1 gramme of fresh juice cantains 0.014 grammes of pancreatic ferment, one gramme of this ferment would transform 333.7 grammes of dry starch. If we assume, with Frerichs, that an adult man requires daily about 400 grammes (=15 ounces nearly) of starch to compensate the daily loss of carbon, the quantity of pancreatic juice necessary for the transformation of this starch into sugar would be less than 105 grammes, while the quantity actually secreted amounts to more than 5000 grammes. Kroeger is therefore of the same opinion with Bidder and Schmidt, viz: that the pancreatic juice cannot have as its *principal* function the transformation of starch into sugar. As one of the functions, he considers the promotion of the constant interchange of fluids within the body, in the same manner as Bidder and Schmidt have made it so probable concerning the salavia, and with Grunewald and Scroeder concerning the gastric juice. It further appears to him that an intimate connexion exists between the secretion of the stomach and that of the pancreas, namely: that the hydrochloric acid secreted by the former is, after having performed its part, neutralized by the soda of the latter, thus again forming the chloride of sodium previously disunited by the process of secretion. In favor of this theory, Koeger observes that the hydrochloric acid secreted by 1 kilogramme of dog through the gastric juice in twenty-four hours, amounts to 0.305 grammes, while that of soda contained in the pancreatic juice of twenty-four hours, is calculated at 0.237 grammes, i. e., very nearly the equivalent (0.259) corresponding to 0.305 grammes of hydrochloric acid.—*British and For. Med. Chir. Review, Jan.*, 1855.

PART THIRD.

BIBLIOGRAPHICAL NOTICES AND REVIEWS.

Autobiography of Charles Caldwell, M. D., with a preface, notes, and appendix. By HARRIET W. WARNER. Philadelphia: Lippencott, Grambo & Co. 1 vol. octavo pp. 454.

This book, although written several years since, has, under the superintendence of HARRIET W. WARNER, just made its appearance.

In style it differs in no respect from that which characterises the many essays, monographs, etc., that the author has written. Force, perspicuity, and often elegance were his, to an extent that gave him a place among the leading writers of his age.

The *matter* of which the volume is composed, is in the main interesting. The author lived for half a century in the midst of all the efforts that have been made in our country to build up the medical profession. He knew also the "actors," most of whom he has attempted to portray, morally and intellectually; and he also details with some care the part he himself took in what was going on.

With reference to the manner in which the author has performed his task, there is quite a diversity of opinion already expressed by Reviewers. Some speak of the work as creditable in most respects, others as not calculated to benefit the the profession, or give its author character with posterity.

The simple circumstance of being a biographer excites some prejudice against an individual. Most men are willing that posterity shall weigh them, and place on estimate upon their labors. Those who are not, are suspected of being vain, or having some selfish end to accomplish. Almost any one could have undertaken to write an autobiography better than Dr. Caldwell. Possessed by nature with an austere, haughty bearing, a great regard for what he imagined to be his own, and a strong disposition to excel in his undertakings, he has been regarded as being cold in his attachments to men, unnecessarily contentious about his rights, and unscruplous in

the means by which he attempted to enforce them. How far, or to what extent such charges are true, our means of knowing are limited. After, however, reading the volume before us, we become impressed among other things, not with the effort the author makes to take to himself an unusually high position with reference to every matter in which he took a part, but with the automatic movements of an intellect that could establish that conviction and no other. Such a result flowed partly from his organization, and of it he was not entirely unconscious. Indeed, in several places where he relates incidents in which he was conspicuous, he hints pretty openly that every man has a right, and it is his duty to praise himself when he deserves it. He knows best his own merits, and why not set the example in the way of having them estimated? Besides tendencies uncontrollable, Dr. C., wrote at a period in life in which there is usually the least supply of that very scarce article called modesty. An octogenarian when he wrote his book, he like most aged men perhaps over-estimated himself and his labors. His mind dwelt upon the past. Indeed all old men live in the past, young men in the future. He had written volumniously and on a great variety of subjects; and at a period when controversy took the place of research, and theory that of fact. What more then could be expected than that he should feel that he had occupied an important place in the history of the profession—and that he should wish to so make it appear.

Another impression that is irresistible to any one who reads his own account of his movements through life, is that he did not possess an over-stock of discretion. Things new, it mattered not how intangible or inappreciable, his mind seized upon as a "lead" to a mine of truth, and he often, after fighting his way to it, found a "mare's nest" from which he was glad to make a retreat. When he took a position his adherence to it was governed more by the opposition it met with, than the truth it contained. He fought for the details of mesmerism and phrenology not only until his opponents were quieted, but until the stench from the putrified rottenness of these isms themselves, drove him from the field. His prospects while in Philadelphia, were good at one time for succeeding Dr. Rush in the chair of Theory and Practice in the University, a position to which he ardently aspired, and for which he was in most respects the best qualified of any his rivals,—but the means he adopted to accomplish the purpose, were anything else than well selected.

He reports, for example, a fuss he had with Dr. Rush, his preceptor, at the time he read his Thesis, which, allowing his own account of it to be true, was unnecessary, improper, disrespectful, and well calculated to give Dr. Rush, who was a model of purity and propriety, a bias against him. Such too, doubtless was its effect, for Barton, who was much Caldwell's inferior, received the appointment.

In the establishment of the Kentucky Schools of Medicine, Dr. Caldwell took a leading part, for which he is entitled to gratitude. The Transylvania University and also the Louisville University, in their origin shared largely of his labors In speaking of these matters, however, those who were associated with him in his efforts, and without whose coöperation nothing at all could have been accomplished, are made to occupy a position rather too much in the back ground for good taste in even drawing pictures.

The connection he sustained to the Louisville University is made to occupy a prominent place in his auto-biography. In this institution he closed his labors as a teachers of Medicine. It was here we first made his acquaintance. When we saw him we thought him too far advanced in years to be profitable as a teacher, though he continued lecturing to the large classes of that institution for several years afterward. Conscious that the feeling was becoming general that he ought to be superannuated, he went to work and got up a very excellent lecture on the Influence of Age on the Intellect, designed apparently to show that he himself, although an octogenarian at the time, or bordering upon it, was still *compos mentis*. This did not stay at all the feeling that had become somewhat general, that younger blood ought to take his place, and as a consequence he resigned, embittered very much in feeling against his late colleagues. To this he gave vent with his tongue and pen,—made charges general and special; these nevertheless at the time were met and refuted, and that too by testimony which was very acceptable to the public, and we could see no reason why it should not have been so to Dr. C. himself, for partly it was *his own* given in relation to the same matters at times when not in a state of irritation.

It is presumable that every one who writes an autobiography, imagines that by so doing he will detail things that will make the race wiser and better. If his own life approach in any respect the character of a model for good, the expectation may be realized. In the case before us, there are some good things mixed up with a

great deal that had better never been said. Among the opinions that are worthy and well expressed are those relating to the course which all those who have aspirations should pursue. According to the author's experience, where one individual has succeeded to fame purely on account of his natural gifts, ninety and nine have done so by industry and energy. Temperance, regular habits of study, exercise and discipline of the faculty of observation, are what can be relied upon with confidence to carry the student to the goal of his ambition. Throughout a long life the author was strictly temperate, and, what was of equal importance, systematic in his intellectual pursuits. One of his maxims was, "Never put off for to-morrow what you can do to-day." Another one equally valuable was, "Do what you undertake to do, well."

What estimate posterity will place upon the writings of Dr. Caldwell remains to be seen. Much that he has written he has lived long enough to see superseded, and the rest occupies a secondary place in the literature of the times.

A fault with him was, that he wrote too much; another one was that he wrote on subjects speculative, and concerning which man will never know anything until his nature is changed. Nor is Dr. Caldwell the only author of our country who has committed the former of these errors. The rage for producing *quantity* and *variety* almost amounts to a literary epidemic among our Medical writers; *quality* and elaborateness seem in their estimation to be among the minor qualities. What are the results? Their works are superseded by those of foreign origin. We might point out a domestic work on Physiology, that fifteen years since was the best perhaps in the language on that subject. It was written in a lucid style, and was, at the period when it made its appearance, up to the times. But the author instead of entering the field of experiment, and keeping himself posted on what others were doing throughout the world, turned his attention to the compilation of other works, for which he had less capacity, and he has now the mortification to see his work on Physiology displaced by one of foreign origin, and from present appearances he will live long enough to see some five or six others that he has compiled, share the same fate.

We might allude to others who are doing the same thing, and who, from present indications will be partakers of the same up-hil kind of joy.

The late Dr. Drake was a model of propriety in regard to book-making. Concentrating his entire energies on a single branch of medical science, he has accomplished what will give him character as long as physic is cultivated. In the field that he selected, he found sufficient to occupy his mind—enough to absorb all the industry and energy that he was able, during a long life, to command, and he passed from among us, regretting that he had achieved so little in the department in which it was his ambition to be useful.

One branch is enough for any individual, and often more than he can elaborate in a manner that is acceptable to the medical taste of the age. Fifty ounces of brain might be dissolved in the ocean, but would the power be increased in any respect by the process? Or rather, would it not be diminished, rendered more impalpable, intangible, inappreciable?

In reviewing his labors, and that too at a period the most proper for placing a right estimate upon them, our author was convinced that a prime mistake he had committed, was that of writing on too great a variety of subjects. Had he concentrated his energies, nothing could have prevented him from a place among the very first.

Considered in most respects, Dr. Caldwell must be regarded as an extraordinary man. He had his weak points and his strong ones. But few men, but what surpassed him in policy, and the social exterior towards his fellows. He was vindictive to weakness and possessed a morbid love of controversy. In early life he undoubtedly imitated Johnson and Gibbon, and hence his style, although at first grandiloquent, has about it the volume, smoothness and strength of these masters in composition. Besides, he was learned, and few men exceeded him in ratiocination. Accustomed to deal some in sophistry himself when engaged in building up a particular theory, he readily recognized the armor when his opponent put it on, and never failed to unmask and destroy him, sometimes by a single blow. If he ever lost anything in his numerous controversies it was not his fault, but the fault of his subject. When his positions were susceptible of proof, no man could roll up the syllogisms with more facility. Nature cut him out for argumentation and he improved his "talents."

A Practical Treatise on Foreign Bodies in the Air Passages. By S. D. Gross, M. D., Professor of Surgery in the University of Louisville, author of "Elements of Pathological Anatomy," &c., &c. Philadelphia: Blanchard & Lea. 468 octavo pp. For sale by Riley & Co.

This is a work on a subject of utility, and has for its basis not the author's experience merely, but collective experience—the experience of the profession as far as it was practicable for the author to get at it.

The first chapter is taken up with general considerations, in which the following propositions are discussed:

1. Nature of Foreign Bodies that may enter the Air-passages.
2. Alterations Foreign Bodies may undergo in Air-passages.
3. Situation of Foreign Bodies in the Air-passages.
4. Manner of entrance of Foreign Bodies into the Air-passages.
5. Expulsion of Foreign Bodies from the Air-passages.

The rest of the work is included in sixteen chapters and a general summary, in which almost every thing relating to symptoms, pathological effects produced, diagnosis, spontaneous expulsion, Medical and Surgical Treatment, are considered. Besides, there is a list of illustrations accompanying the work, designed to give a representation of the forms, &c., of the various substances which have been extracted or expelled; and also of the instruments necessary when there is a resort to an operation.

We have not the space in this No. of the *Journal* to follow the author over the ground which he occupies in the chapters to which we have referred. In most of them we find matter that would be very acceptable to our readers, and that would give us pleasure to transcribe to our pages, but we must be content for the present with a mere notice of some of the more practical points.

The diagnosis is discussed with care. The author says:

"Although the symptoms which denote the intromission and presence of a foreign body in the air-tubes are, in general, sufficiently well-marked to enable us to arrive at a satisfactory conclusion regarding the true nature of the accident, yet occasionally the most thorough examination of the patient and the most minute inquiry into the history of the case fail to afford the requisite light for the formation of a correct opinion. Such a state of uncertainty is always to be deeply lamented, for it is not only a source of great and painful embarrassment to the practitioner, but it may be, and indeed

often is, followed by the worst consequences to the poor sufferer, inasmuch as it prevents the prompt employment of such means as are necessary for his safety and relief. It is for this reason that every case, involving the question of the presence of a foreign body in the air-passages, should be most carefully investigated at the earliest possible moment, in order that no time may be lost in applying the proper treatment, and thus obviating the risk of suffocation from the long and mischievous sojourn of the obnoxious substance in structures so essential to the well-being and the life of the individual. The rule, in all cases of this kind, is to act in the most prompt and efficient manner, on the well-known principle that, although the foreign body may not immediately prove fatal, yet the longer it is retained in the parts, the greater will be the probability that it will ultimately destroy the patient, by keeping up an amount of irritation, the effects of which the respiratory apparatus and the system at large cannot permanently resist. I have repeatedly experienced this state of uncertainty, and have no doubt it has often been felt by others."

The presence of extraneous bodies in the respiratory organs, give rise often to symptoms very much like what may be produced by croup, whooping-cough, ulceration of the larynx and trachea, aneurism of the aorta, worms in the intestines, and the lodgment of substances in the pharynx or esophagus.

Among the signs which indicate the presence of foreign bodies in the air passages, there is one which, when present, may be regarded as pathognomonic: the noise produced by the substance as it passes up and down during inspiration and expiration, from the bronchia to the larynx. This sound, in a case that we witnessed of a boy six years of age, was so audible as to be heard at some distance.

Two cases of foreign bodies in the trachea, occurred a few weeks since in the practice of Dr. T. W. Jones, of Bloomfield, Pickaway county, Ohio, in both of which this symptom was present—of course it would be most likely to be present in cases where the foreign body consisted of a grain of corn, a bean, pebble, or something else which, from its weight, would not be likely to become imbedded in mucus or sacculated. It can readily be imagined that light substances would not be so apt to be attended with such a sound. Auscultation would then be the most available diagnostic measure.

A very important question generally arises after the presence of the foreign body is satisfactorily ascertained, viz: shall an operation

be immediately performed? The substance may be spontaneously expelled, or it may be expelled by the use of emetics, sternutatories, or by the inversion of the patient's body. A table of 49 cases followed by spontaneous expulsion, with recovery, is given by the author, in 37 of which the foreign body was expelled while in the act of coughing; also a table of 8 cases of spontaneous expulsion, followed by death. The period during which the foreign body may remain in the air tubes after the first symptoms have passed off, varies, according to these tables, from a few minutes to weeks, months or years. In one case, the substance—a piece of bone—was retained sixty years.

The author gives 46 cases in which *emetics* were unsuccessfully employed; and he states that personally he has no experience with them, for he has never in a single instance resorted to their use.

Nothing can be learned, as far as we can see, from this table, unless there was something with which it might be compared. It shows that 46 patients have died where emetics have been used. It would not be difficult to show, we presume, by the experience of almost any practitioner, that 49 cases of ague have died after quinine had been used.

Sternutatories are considered at length, and *one* case given in which they proved efficacious. The author, however, thinks them entitled to but little confidence.

Inversion of the body as a means of removing or getting clear of the foreign substance, is noticed, together with the danger connected with the measure.

Chapter IX is devoted to Surgical Operations, and we transcribe a few of the author's remarks on this important portion of the work:

"A careful examination of the facts which are comprised in this treatise, will, I think, serve to satisfy any one, however prejudiced or skeptical, that the only real safety of a person, laboring under a foreign body in the air-passages, consists in bronchotomy. We have seen, it is true, that various substances, entrapped in these passages, may be ejected, either spontaneously, or through the intervention of art, as the use of emetics and sternutatories, or even by simple inversion and succussion of the body; but no one, surely, acquainted with the subject, would adduce such cases for the purpose of establishing a rule of practice. They are the exceptions, not the rule, and, as such, they are valuable and worthy of consideration. As long as the extraneous substance remains in the windpipe, the patient, as

has been already repeatedly stated, is in constant danger of being suffocated; or, if he escape so horrible a death, of perishing from inflammation and its consequences. The proper practice, therefore, is, in all cases, without exception, to perform bronchotomy as soon as possible after the occurrence of the accident. The artificial aperture effectually prevents spasm of the muscles of the larynx, and thus enables the patient to breathe with greater freedom, at the same time that it permits the foreign body, if it do not escape entirely, to play up and down the air-tubes with perfect impunity. In many cases, however, the foreign substance is expelled as soon as the windpipe has been properly opened, being often projected to a considerable distance from the patient's body. In general, it escapes at the artificial orifice, but sometimes it passes through the glottis, and is either expelled by the mouth, or it descends into the stomach. The ejection is occasionally delayed for days, weeks, and even months after the operation, and even after the closure of the wound. Under such circumstances, a second and even a third operation may become necessary, as in several of the cases mentioned in this treatise."

What to observe at the Bed-side and after death in Medical cases. Published under the authority of the London Medical Society of Observation; second American, from the second and enlarged London edition. Philadelphia: Blanchard & Lea. (For sale by Riley & Co.,) 1855, pp. 228.

The London Society of Observation, felt, very early after its organization, the necessity of some plan by which the labors of analyzing and comparing clinical observations might be greatly lightened, and the precision of the observations themselves increased. Dr. Walshe undertook a form of arrangement, and in connection with the committee appointed by the society has framed the little volume before us, which is in every respect creditable to all concerned in its composition.

The work embraces, Part 1st, Clinical Examination of a Patient; Part 2d, Examination of a Body after Death, and an Appendix.

Under these divisions are considered, with reference to Part 1st:

1. The personal description of the patient in health.
2. The previous history of the patient.

3. The causes of existing disease previous to the patient coming under observation.

4. Condition of the patient at the time of observation.

5. Treatment.

With reference to Part 2:

1. Points to be ascertained and noted, prior to commencing an examination.

2. Points to be noted during examination.

To physicians just commencing business, and who wish to form close habits of observation, this little volume will be very serviceable. Indeed it is just the thing they need—something that will suggest to them the points most important.

Is not the fact that we have so few who write out their observations, attributable in part to a want of habit in early life of making themselves familiar with every circumstance that usually characterizes diseased action?

This book ought to meet with a rapid sale.

The Principles and Practice of Obstetric Medicine and Surgery, in reference to the Process of Parturition, with sixty-four plates, and numerous wood-cuts. By Francis H. Ramsbotham, M. D., Fellow of the Royal College of Physicians of London; Obstetric Physician to the London Hospital, and Lecturer on Forensic and Obstetric Medicine at the London Hospital Medical College, lately Physician to the Royal Maternity Charity of London, etc., etc. *A New American Edition, Revised by the Author, with Notes and Additions.* By Wm. V. Keating, M. D., A. M., Lecturer on Obstetrics and Diseases of Women in the Philadelphia Medical Association, etc., etc. Philadelphia: Blanchard & Lea, 1855, octavo pp. 642.

This as it purports to be, is a New American edition, revised by the author, who has also made some additions to the former text. These relate to turning the child as a means of delivery under a contracted pelvis when the head presents, to the removal of the placenta before the fœtus when the os uteri is covered by that mass, —subjects which of late have occupied the attention of practitioners in both hemispheres. He has also, in the present edition, entered more fully into the connection between the maternal and fœtal systems; made an attempt to account for the establishment of the first

drawn sob, and has introduced a second plate to illustrate the difference between the true and false corpus luteum.

It is unnecessary to say any thing in regard to the utility of this work. It is already appreciated in our country for the value of its matter, the clearness of its style, and the fullness of its illustrations. To the physician's library it is indispensable, while to the student as a text book from which to extract the material for laying the foundation of an education on obstetrical science it has no superior.

The present edition is got up in superior style by Blanchard & Lea, and is on sale at the Book Store of Riley & Co.

PART FOURTH.

EDITORIAL AND MISCELLANY.

OHIO STATE MEDICAL SOCIETY.

This body holds its next annual meeting in Zanesville, on the first Tuesday of June, that being the 5th day of the month.

It is very desirable that there be a full attendance of the members from all the different portions of the State. Hitherto it has been too much the case that the annual meetings have been made up mostly of physicians residing in the more immediate vicinity of the place of meeting. This might, if continued, give to the proceedings something of a local character. The design of the annual meetings is, among other things, to have a summary presented of what has taken place in every portion of the State. Our epidemics not only shift their location, but assume new phases every year.

As a profession, it is important that we should know each other, in order to exchange views on the past and future. It is only by comparison that many things can be properly estimated, and it is only by concert of action that we can achieve what is most desirable. The medical history of Ohio is very far from being perfected. In many of its features it has scarcely been investigated at all. So true is this, that inquirers from a distance are all the time distributing circulars among us for information as it regards this, that and

the other subject. Now, if we have matters in our midst that interest those outside of the State, of course they ought to interest us,—and what is more shameful than that we often know so little about such things ourselves as to be unable to give the required information?

Our profession owes what it is to industry properly directed. We can look back and see that if there had been no Hippocrates, no Galen, no Van Helmont, no Riverius, no Sydenham, no Boerhaave, no Sanctorius, no Fothergill, no Pringle, no Huxham, etc., we should now be in possession of scarcely anything with which to compare modern diseases. Take, for example, from us the single account that Sydenham has left us of the epidemics of his age—the 17th century—and see what a void would be left in the literature of epidemics. We have in our day a great variety of diseases, and a great variety of complications. Everything connected with their origin and progress, it is not merely our privilege, but our imperative duty, to record for present and future use. Knowledge of this kind is capital stock, that enriches our profession, strengthens the hands of its members, and ultimates in the happiest consequences to the race.

Our profession, compared with others, and with the sacrifices required, is now rewarded but poorly in many respects. Public confidence is at a low ebb, and the remuneration that the Physician receives for his services is often insufficient for a support. Revolution in things of this character is necessary, and it is not saying too much to say that it is practical. But to bring about the right results, requires effort—united effort—the effort of all the Physicians in the State.

SIGNS OF THE TIMES.

Into the future, near to it as we are, no one has ever been permitted to look; no faculty that we possess enables us to penetrate the dark mantle that hides it from our view. Constituted, however, as we are, something may be done in the way of ascertaining what "*will be*" from what "*has been.*" This rule, however, is oftener true with reference to the things of nature, than to those of art or society. Applied to Physics, it is indeed our most certain method of finding out what the future will bring forth; and, as a consequence, we may calculate with some confidence that

the generation now in the womb of futurity, in physical conformation, etc., will not be very much different from the one now nursing in the lap of mother earth. Not, however, with the same certainty, can a rule be invoked in regard to the actions, moral, intellectual, and social, of those still behind the screen. Every age has furnished proof, some very abundant, of the changes which these departments undergo. Things not dreamed of in the last, have been developed in the present generation, and the next may be pregnant with some still more astonishing. Hazardous, then, must be all conjectures that involve future human actions.

Every individual has his period in life when he is a skeptic—when he doubts the goodness of his neighbors, and even the validity of the reasons why he should be an accountable being. The same thing is true of communities and nations, in regard to the utility of existing institutions. A whim comes over the public mind which leads to a disposition to change old things for new—things tried for those untried. It matters not how well an institution has answered the purposes for which it was designed, or how unlikely that anything better could be substituted in its place, the passion is irresistable, and will seek an expression, at the risk of destroying what has been consecrated, dedicated, and sanctified by the experience of fifty centuries, or the unerring teaching of the all-wise Being himself.

At the present time, a paroxysm of the kind has taken possession of the public mind, and has affected the interests of almost everything connected with the social state. It is not necessary to state the fact that Medicine—scientific Medicine—has shared largely of this trouble. Anatomy, Physiology, and Chemistry have been scouted as useless, and Practical Medicine itself denounced as injurious in its results to the welfare of the race. The breadth and depth of this feeling, there is every reason to believe, is greater now than at any former period of the world's history. Were it confined to the herd, it might be presumed that it would pass off without any great amount of injury to the cause of truth. Unfortunately, this is not the case. It extends to those who have position, those who have power to operate and carry out any scheme that ignorance and the desire for innovation may suggest. The legislative department of our country, at various points, during the last ten years, have given evidence of the extent to which it is effected, and has foreshadowed

proclivities that the most careless observer cannot fail to interpret. Indeed we may look for offensive movements from a variety of quarters.

With such troubles before us, it is no easy matter for the profession to shape a course by which it will secure the greatest possible amount of immunity. But we are not united as we should be, an indispensable prerequisite to the perfection of schemes of defense. Concert of action implies union, and without the latter the former is impossible. Institutions for Medical education we have multiplied all over the land, but have incorporated in them too small a proportion of the elements that secure harmony and efficiency in results.

Nor is our membership in any better condition. Ambition for business too often takes the place of research, formality of etiquette that of kindness of heart, and obsequious studied mannerism that of genuine old-fashioned dignity—the bearing that arises from consciousness of purity of intentions.

To present a formidable front, to accomplish the greatest possible amount of good, our present condition requires to be looked into, to be closely scanned. Put away "dead heads" and "dead hearts;" give us working men, with good intentions, and the ship of Medicine will again weather the storm.

Benevolent Institutions.—The Benevolent Institutions of Ohio were never managed with more science and energy than at the present time. Those who have them in charge devote wholly their time and attention to them, perfecting them in everything that the experience of the age suggests. With the two new buildings erected at opposite points in the State, the accommodations in the future will be sufficient for most, if not all, the lunacy that occurs among us. The provision for the education of the Blind is also sufficiently capacious. This, however, is not true with reference to the building, facilities, &c., originally erected for the education of the Deaf and Dumb. At present a large number of applications, the Superintendent is compelled to refuse for the want of room. When this is seen to, we shall present as a State, this feature of civilization in a form of which any people might well be proud.

In future R. Gundry, M. D., will be connected with the Journal as Assistant Editor. The business department will remain as heretofore.

Ohio Penitentiary.—The Report of the Directors and Warden of this institution has been laid on our table for the past year.

The Medical aspect of this report is worth noticing on several accounts, but we have no time at present to allude to but one or two points. The number of convicts catalogued is 587. Of this number, there were seven deaths from December until June, a period of seven months; and 37 from June until November, a period of five months —making the mortality for the year 44.

In examining into the nativity of the prisoners, it will be found that 142, or about one-fourth of the whole number, are foreigners. This is a proportion much too large for the number of foreigners there are in the country. According to this statement, their proclivities to crime are about double that of those of indigenous origin. The moral regulation of the institution, although as perfect perhaps as it can be made under the present laws organizing it, requires a radical reform. Old prisoners, those hardened in crime, and from whom little, if any reformation can ever be expected, are now the companions of a class of juvenile offenders—boys from fifteen to twenty years of age. The tendency of this admixture, in spite of all the efforts practicable, must be everything else than salutary. These boys, if properly classified and cared for, would be amenable to efforts of reform, and the most of them, when their terms of service expire, would be returned to society as useful citizens.

A new institution, therefore, is indicated, in which shall be placed the juvenile offenders of the State. To say nothing about justice or benevolence, this measure is required by policy.

A Work on Mal-Practice.—Dr. Stephen Smith, of New York, one of the editors of the New York Journal of Medicine, announces that he has in course of preparation a work on Medical Jurisprudence, and he says it will greatly facilitate its completion for the press, if members of the profession will communicate to him reports of trials, facts in relation to suits threatened or instituted, etc., etc.

High Operation for Stone in Females.—Prof. W. Parker, of New York, reports three cases of adult females in which he successfully removed calculi by the supra pubic operation.

Report of the Sanitary Commission on the Epidemic Yellow Fever of 1853, of the City Council of New Orleans.—We have no space for an analysis of this report in the present No. of the Journal. The report embraces some 541 pages, and is accompanied with a sanitary map of the city of New Orleans. One thing will not fail to strike the reader in the perusal of this report. We allude to the immense labor and industry necessary to get it up. Such efforts in the past have never failed to be productive of the best results, and our Southern cotemporaries, if they persevere, may expect the same thing in the future. The day, indeed, is not far distant when yellow fever will be as fully unfolded as has been intermittent.

We of the North owe to our friends in the South a lasting debt of gratitude for keeping us well posted up in regard to the progress of some of the most interesting forms of disease with which the world has ever been visited.

Receipts for the Journal will appear in our next No.

On the Gastric Juice, and its office in Digestion. By JOHN C. DALTON, Jr., M. D., New York.

Though the gastric juice has been more fully and perhaps more successfully studied than any other of the digestive fluids, there are still some contradictory statements with regard to it, even among authors of the first eminence. Since the admirable observations of Dr. Beaumont on the person of Alexis St. Martin, the secretion has been examined on the lower animals, by Blondlot, Schwann, Wasmann, Bernard, Lehmann, and others, whose researches have, in most essential points, confirmed those of the American observer. During the past year I have studied the gastric juice, at various times, by means of fistulæ, artificially established in the stomach of the dog, after the method of Blondlot and Bernard. The secretion was almost always obtained by feeding the animal with raw or cooked meat, after a twelve hours' fast, and collecting and filtering the fluid that ran from the fistula during the first half hour afterward. The statements of Dr. Beaumont in regard to the intermittent character of the secretion were always found to be correct. The stomach, in the intervals of digestion, contains only a colorless mucus, usually alkaline in re-action, though sometimes neutral.

The acid fluid begins to run by drops in about five minutes after the introduction of food, and in ten to fifteen minutes it flows freely—occasionally in a small stream—from the orifice of the fistula. It then runs so fast that four or five ounces can be collected from a medium sized dog in the course of half an hour. During the first five minutes of its flow it is sometimes colorless, but afterward it has a faint amber tinge, resembling that of pale urine or the serum of the blood.

A little confusion of ideas seems to have existed in the minds of some observers with regard to the best method of obtaining gastric juice in a state of purity. Several have thought this could be best accomplished by irritating the gastric mucous membrane with substances not liable to be attacked by the secretion; as, for example, glass rods, metallic sounds, &c. Dr. Beaumont appears to have sometimes succeeded in obtaining a tolerably large quantity of fluid by this means. I have myself, however, never been able to obtain a sufficient quantity of the secretion in the dog by any other means than the introduction of food. The stomach will often refuse to secrete a single drop of acid liquor, though irritated almost constantly for a quarter of an hour by a metallic catheter. Other observers, also, subsequent to Dr. Beaumont, are all agreed that only a very small quantity can usually be collected by such means; and yet they continue to recommend and employ the method, under an idea that the gastric juice so obtained will be "purer" than that procured in any other way. A moment's consideration, however, will show that the fluid which is secreted under the influence of so artificial and unnatural a stimulus cannot at all be relied on as representing the real gastric juice; and that the only proper method of obtaining this is to present to the stomach its natural stimulus, viz: the food which its secretion is intended to digest. The mistake, however, has been frequently made, and will undoubtedly account for some incorrect statements with regard to the specific gravity of the gastric juice, its noncoagulability by heat, &c. Frerichs, for example, in *Wagners' Encyclopedia of Physiology*, (Art. *Digestion*,) directs that, in order to obtain a "pure" gastric juice, the animal in whom gastric fistulæ have been established "should be fed, while fasting, with *indigestible substances, pebble-stones, pepper-corns, &c.*, and the fluid from the stomach then examined." A singular attempt, certainly, to excite a "normal" secretion by means of substances which are altogether foreign and unnatural to it, and with

which it has no physiological relation. The truth is, these authors make a pure assumption when they regard the fluid so collected as more "normal" than that obtained by other means. They do not seem, either to attach sufficient importance to the fact that these irritants can at best produce only a very scant supply of the secretion. Frerichs himself says he has only been able to obtain in this way from forty-five drops to two drachms and a quarter of "pure" gastric juice. This is not surprising, since he employed the method least adapted to excite its secretion. The secretion of true gastric juice can, in fact, be excited only by food, and by those particular kinds of food which are to be digested by it. Loaf sugar given to the dog, will be dissolved and disappear altogether from the stomach, as I have repeatedly found, without causing any appreciable amount of secretion. The same thing may be said of starch paste, when given alone. I have even seen tough and indigestible pieces of tendon, introduced through the fistula, expelled again spontaneously, one after another, without causing the flow of a single drop of acid fluid; while cooked meat introduced in the same way, produced immediately a free secretion. It is evident, then, that to procure normal gastric juice, *i. e.* the fluid normally secreted during the process of digestion, we must make use of its natural stimulus; and we cannot hope to obtain it in any other way.

There are only two possible sources of impurity for the gastric juice taken from the stomach after the introduction of ordinary food. One is an admixture of saliva. This, however, is generally regarded as of little importance, and, at any rate, it is not to be avoided by any of the methods proposed as substitutes. Saliva is even liable to be swallowed in the intervals of digestion, when no food whatever has been taken. The other source of impurity, and that which has been thought more important, is the danger that the fluid taken from the stomach, even at the commencement of digestion, may have already dissolved some of the elements of the food, and thus present to the experimenter at complicated solution, instead of pure gastric juice. This, however, is not the case. If the animal be fed upon firm pieces of fresh meat, containing little blood—particularly if the fluids have been previously coagulated by a short boiling—a sufficient length of time elapses before solution begins for the experimenter to obtain an abundant supply of the unaltered secretion. The two principal products of digestion, albumen and albuminose,

may be readily detected if present; and experiment shows that they do not exist in the fluid obtained by this means. There is, then, really no objection to the employment of this method; which is, indeed, the only reasonable and physiological one.

Gastric juice, obtained as above, has the following properties: Its specific gravity is 10.10; its acid re-action is always decided; its viscidity is so slight as to be hardly noticeable; it becomes turbid by boiling, and by an excess of alcohol; it is not troubled by nitric acid, nor by ferrocyanide of potassium.

Its *organic ingredient*, concerning which so much has been said, is undoubtedly the most important of its constituents. Though it has never been separated in a perfectly pure state, its presence is easily demonstrable. It may be the altered mucus of the stomach, as Bernard supposes, or a mixture of various organic matters, as believed by others; but it is certainly a peculiar subtance, found no where else in the body, and essential to the digestive properties of the gastric juice. There seems no good reason why we should not retain for it the name of *Pepsin*, first given to it by Schwann; always recollecting, for the present, that this name does not indicate its chemical character or origin, but only its physiological destination. The pepsin resembles albumen, as stated by Robin and Verdeil, it being coagulated by heat. Lehmann and Frehrichs are certainly in error when they assert the contrary; an error into which they have perhaps been led by regarding as true gastric juice an unnatural fluid, obtained by the unnatural means alluded to above. The coagulum thrown down on boiling fresh gastric juice is not albumen, as Lehmann intimates, since it is not precipitated by either nitric acid or ferrocyanide of potassium; and after gastric juice has been boiled and filtered it has lost its digestive power, though its acid re-action remains unaltered.

With regard to the *mode of action* of gastric juice, it may be confidently stated that it acts only on the albuminoid substances, and articles of food containing them—as meat, eggs, bread, nutricious vegetables, &c. It is also true that these matters are mostly converted by the action of gastric juice into albuminose, *i. e.* a substance which is not coagulable by heat or nitric acid, but which is best precipitated by an excess of alcohol. If the different articles of food be digested in fresh gastric juice in test-tubes, at a temperature of 100° F., it will be found that the digestible ingredients of bread are all taken up under the form of albuminose. If

cheese be treated in the same way, its casein is altogether converted into albuminose, and dissolved, while its oleaginous matters are set free, and collect as a yellow layer on the surface of the solution. A very considerable portion of raw white of egg, however, dissolves in the gastric juice directly as albumen, and remains coagulable by heat. Soft-boiled white of egg and raw meat are principally converted into albuminose, but at the same time a small proportion of albumen is also taken up unchanged.

The gastric juice *actually dissolves the articles of food.* This has been through some mistake, recently denied by one observer, so far as regards muscular tissue; the fibres being supposed to be simply swollen and partly disintegrated, but not actually dissolved in the stomach. The contrary, however, can be readily seen, by digesting raw meat, cut into small pieces, with fresh gastric juice, at 100° F., for eight or nine hours. The filtered fluid which is perfectly clear, but rather more deeply colored than at first, has increased in specific gravity from 1010 to 1020, or 1022; and, by the addition of six or eight times its volume of alcohol, becomes excessively turbid and opaque, like thin milk. It is true that all parts of muscular tissue do not dissolve; and there remains constantly, at the bottom of the test-tube in which the digestion has been formed, a pulverulent, brownish sediment, consisting of the undigested portions of the meat. This is the case, also, with boiled white of egg. While the digestion is going on, it is easy to see that as the general mass of the fragment becomes transparent and gradually liquefies, there remain scattered through its substance, numerous minute opaque spots which are not acted on; and which, when set free by the solution of the rest, produce an opalescence in the fluid, and collect slowly as a sediment at the bottom. Whether these refractory portions are afterwards dissolved by the intestinal fluids, or whether they are altogether indigestible, and destined to be discharged with the excrements, is at present uncertain.

The *quantity of albuminoid matter dissolved by the gastric juice* has been variously stated. The method which I have adopted to determine this point is the following: it was first ascertained that the fresh lean meat of bullock's heart loses by desiccation 78 per cent. of its weight; 300 grains of such meat, cut into small pieces, were then digested for ten hours in 3iss of gastric juice at 100° F., the mixture being agitated as often as every hour. The meat remaining

undissolved was then collected on a previously weighed filter and evaporated to dryness. When perfectly dry it weighed 55 grains. This represented, allowing for the loss by evaporation, 250 grains of the meat in its natural moist condition; 50 grains of meat were then dissolved by 3iss of gastric juice, or a little over 30 grains per 3j.

From these data, we can form some idea of the large quantity of gastric juice secreted during the process of digestion. One pound of raw meat is only a moderate meal for a medium sized dog, and yet, to dissolve this quantity (supposing the whole of it to be digested,) no less than sixteen pints of gastric juice will be necessary. This quantity, or any approximation to it, would be altogether incredible if we did not recollect that the gastric juice, as soon as it has dissolved its quota of food, *is immediately re-absorbed*, and enters the circulation with the alimentary substances which it holds in solution; so that a very large quantity of the secretion may be poured out during the digestion of a meal at an expense to the blood, at one time of only two or three ounces of fluid. The simplest investigation shows that the gastric juice does not accumulate in the stomach in any considerable quantity, to remain there until the solution of all the food has been accomplished, but that it is gradually secreted so long as any food remains undissolved; that portion which has been already digested being disposed of by a re-absorption with its solvent fluid. There is, then, during digestion, a constant circulation of gastric juice from the vessels to the stomach, and from the stomach back again to the vessels. Or perhaps it would be more correct to say that it is only the watery portions of the juice, holding sometimes in solution the digested albumen and albuminose, that perform this circulation; while its acid and organic ingredients remain very possibly in the stomach, ready to act on a new quantity of food, as that which has been already digested is withdrawn by absorption. That this is really the case, is proved by the following facts:—First, if a dog be killed some hours after taking a meal, there is never more than a very small quantity of fluid found in the stomach, just sufficient to penetrate and smear over the half digested pieces of meat; and, secondly, in the living animal, gastric juice drawn from the stomach when digestion of meat has been going on for six hours, contains little or no more organic matter in solution than that extracted fifteen to thirty minutes after

the introduction of food. It has evidently been freshly secreted; and, in order to obtain gastric juice saturated with alimentary matter, it must be artificially digested with food in test-tubes, where this constant absorption and renovation cannot take place.

The time necessary for the digestion of food varies apparently in different species of animals. In the dog, one pound of lean uncooked meat is completely digested, and disappears from the stomach, only in from eight to nine hours. From experiments of M. Colin, of the Veterinary School at Alfort, it appears that the process is equally long in the cat; and probably, in all the purely carniverous animals. Dr. Beaumont, on the contrary, found in Alexis St. Martin, meat and bread were digested in five, four, and three hours, and even, in some instances, in an hour or an hour and a half. This difference is undoubtedly in part owing to the influence of mastication, which is so very imperfectly performed in the carnivora. It might be supposed that, having constant opportunity of obtaining gastric juice from the dog, and of studying its effects in artificial digestion, we might easily determine the relative digestibility of the different articles of food used by ourselves. This, however, is not the case. The readiness with which a substance dissolves in gastric juice is only one element of its digestibility in the stomach. This depends also on the readiness with which it excites the secretion, and stimulates the peristaltic movements of the organ, the ease with which it disintegrates, the amount of previous mastication, &c. For the human species, then, the digestibility of the various kinds of food can be properly determined only by direct observations on the human stomach, like those of Dr. Beaumont; and it will probably be long before we shall have any others so valuable, in this respect, as his.

Amylaceoas substances are not digested in the stomach. It is easy to ascertain that cooked starch, artificially digested for ten hours in gastric juice, at 100° F., still exhibits its characteristic re-action with iodyne. Bernard also maintains that it is equally unaffected in the stomach. Some writers, however, have thought that the well-known property of saliva in converting starch into sugar, would be exerted even in the stomach during the process of ordinary digestion. Lehmann, for example, states that "sugar may be detected, by the ordinary means, in the stomach of the animal (with gastric fistula) in ten to fifteen minutes after it has followed balls of starch, or after they have been introduced through the fistula." I

am at a loss to understand the grounds of the assertion, as I have never met with similar results. Either cooked or raw starch, administered mixed with meat or introduced alone through the fistula (the animal will not eat pure starch) is easily recognizable by its re-action with iodine, ten, fifteen and thirty minutes afterward. In forty-five minutes it is diminished in quantity, and in one hour has almost invariably disappeared; but no sugar is to be found at any time. Outside the body, too, gastric juice entirely prevents the saccharine conversion of starch by saliva. A thin solution of boiled starch, mixed with an equal quantity of saliva, and kept a 100° F., is completely converted into sugar in ten to fifteen minutes; but if an equal quantity of fresh gastric juice be previously added to the mixture, there is no trace of sugar, even at the end of three hours, and the starch retains its usual properties. It must be acklowledged, therefore, that though saliva converts starch outside the body, when digested alone in test-tubes, yet it does not have this effect, so far as we can ascertain, during the natural process of digestion in the stomach.

Cane sugar is slowly converted by gastric juice, outside the body, into grape. Two grains of cane sugar, dissolved in half an ounce of gastric juice, and kept at 100° F., gives traces of glucose at the end of two hours, and in three hours the quantity of glucose is considerable. It cannot be shown, however, that the gastric juice exerts this effect on sugar during ordinary digestion. If cane sugar be given to the dog while digestion of meat is going on, it disappears in from two to three hours, without any glucose being detected. There is a singular peculiarity, however, in the action of cane sugar, introduced into the stomach of the dog while empty. If half an ounce of loaf sugar be given to the animal after a twelve hours' fast, when the stomach contains no food or gastric juice, it almost invariably produces an immediate reflux of intestinal fluids (among which the bile is readily recognized by its color,) and these promptly convert a part of the sugar which has been swallowed, so that in fifteen to thirty minutes the fluids extracted from the stomach contain an abundance of glucose. This, however, is only temporary. In forty-five minutes to an hour, the intestinal fluids cease to be present, and the glucose at the same time disappears. Unaltered cane sugar, however, still remains and continues present for two and a half to three hours, when it gradually disappears without any subsequent production of glucose. During all this time, as has been mentioned above, no gastric juice is secre-

ted, the re-action of the stomach remaining constantly neutral or alkaline.

The above experiments render it probable that even when cane sugar is taken with other articles of food, it is not converted into glucose in the stomach. We cannot, however, be perfectly sure of this, owing to a circumstance not generally known, viz: that the presence of the gastric juice interferes with Trommer's test for grape sugar. If a drop of honey be mixed with a drachm or two of gastric juice, on adding sulphate of copper and potassa, the solution takes a rich purple color, and on boiling, changes to yellow—but no copper is deposited. A mixture of honey and gastric juice, in equal volumes even, does not reduce the copper unless it be previously diluted with water; in that case the copper is deposited as usual. I have not been able to ascertain upon what ingredient of the gastric juice this singular property depends. It is not its free acid, since, if previously neutralized by potass, it still behaves in the same way. It is not its organic ingredient, since if this be separated by boiling and filtering, it continues to act as before. Even the addition of several times its volume of alcohol does not altogether prevent the interference. A considerable proportion of glucose may still be recognized, notwithstanding the presence of gastric juice, by the change of color from purple to yellow above mentioned, though there may be no precipitate; but a small proportion does not show itself in any way. One-sixteenth of a drop of honey in one drachm of gastric juice produces no change of color that could at all be relied on as a test; while the same proportion of honey in water reduces the copper promptly and abundantly. We cannot, therefore, detect a moderate quantity of glucose in gastric juice by this means.

It is universally agreed that oleaginous substances are not attacked by gastric juice, but are simply set free from their union with other matters. Thus, if adipose tissue be digested artificially, the walls of the fresh vesicles, with the areolar tissue, are dissolved, and the oil collects a distinct layer on the surface. The oily matter of cheese acts in the same way, as already noticed. Boiled yolk of egg digests in a similar manner. Its albuminoid ingredients are dissolved out, while the fat collects at the top of the solution, as a mass of yellowish semi-solid granules.—*Buffalo Medical Journal.*

PRIZE ESSAY FOR CHOLERA INFANTUM.—The undersigned, a committee appointed by the New York Academy of Medicine, hereby give notice that a prize of ONE HUNDRED DOLLARS will be awarded to the author of the best essay on Cholera Infantum.

Each communication must be accompanied by a sealed packet, containing the name of the author, which will be opened only in the case of the successful competitor. Unsuccessful communications will be returned, on application, after April 1, 1856.

Communications must be addressed (post-paid) to the Chairman of the Committee, Dr. Joseph M. Smith, No. 11 East 17th street, New York, on or before the 1st of January, 1856.

New York, February 23, 1855.

JOSEPH M. SMITH, M. D.
ISAAC WOOD, M. D.
H. D. BULKLEY, M. D.
JOHN W. CORSON, M. D.
S. S. PURPLE, M. D.

DIFFERENTIAL DIAGNOSIS OF SYPHILITIC AND NON-SYPHILITIC DISEASE OF THE TESTICLES.—Dr. Markoe, of the New York Hospital, in a lecture, thus contrasts the two in the Medical Times:

SYPHILITIC FORM.	NON-SYPHILITIC FORM.
1. Begins in testicle.	1. Begins in epididymis.
2. Smooth and regular.	2. Irregular and knobbed.
3. Hard and painless.	3. Less hard and more painful.
4. Scrotum unaffected.	4. Scrotum early adherent.
5. Both testicles involved.	5. Usually one only.
6. Hydrocele very common.	6. Hydrocle rare.
7. No supuration or fungus.	7. Abscess or fungus common.
8. No glandular affection.	8. Glands of groin enlarged.
9. Venereal appetite gone.	9. Not ascertained.
10. Treatment successful.	10. Treatment unsatisfactory.

IMPROMPTU TRACHEOTOMY.—It occurs occasionally to the medical practitioner to be called on, unprepared and unfurnished with the proper instruments, to perform the operation of tracheotomy. It may not, therefore, be amiss to state what may be done on such an emergency. A pair of pointed scissors exists in every case of instruments, and in every house. With these the integuments over the trachea may be divided, and, the points brought together, the

trachea pierced; the points being duly separated, a horizontal, longitudinal opening is made. If the case be extremely urgent, the handle of a teaspoon may now be inserted, and turned one quarter round; the opening is then patent, and the patient, if previously struggling for breath, is relieved, perhaps saved.

To render the tracheal orifice permanently patent, a portion of the tissues surrounding and composing the orifice may be included in a loop of cotton, at four opposite points, and the cotton may be drawn tight, and fastened to a ring of wire, tin, whalebone, cane, or even card. If all these are absent, the pieces of cotton may be readily tightened by the operator and an assistant.

In this manner, life may be saved in the case of choking, and in other cases of laryngismus.—*Lancet.*

How to Test the Genuineness of Cod Liver Oil.—We possess in sulphuric acid a simple re-agent by which genuine cod liver oil is easily distinguished from other kinds of oil. A few drops of this acid produce, in olive oil, a dirty, grey color; in poppy oil, a deep yellow color, approaching brown; and in ordinary fish oil, a deep brown color; while poured drop by drop into cod liver oil, sulphuric acid produces in it a centrifugal movement, particularly where the drops fall, and, at the same time, a beautiful violet color, which changes to purple the moment the mixture is agitated, and ultimately to a rich sienna brown. This color is no doubt due to the action of the sulphuric acid on the constituents of the bile contained in the oil. The action of the re-agent is best seen by adding one or two drops of concentrated sulphuric acid to about half a teaspoonful of the oil, spread out upon a white porcelain plate.—*Lancet.*

Emetics in Tooth Ache.—M. Cæsar Fredericq, of Ghent, has directed attention to a variety of tooth-ache, which is indicative of a disordered state of the stomach, and which he has succeeded in relieving by the administration of ipecacuanha in emetic doses. He has seen this treatment succeed where everything else had failed, and where even the removal of the diseased tooth produced no effect.—*Ib.*

Pumpkin Seeds for Tape Worms.—A sufficient number of cases have been reported to show that the emulsion made of Pumpkin seeds possess some real efficacy as a remedy for the expulsion of tape worms.

The usual mode of using it, is to remove the rind from the seeds, bruise the latter in a mortar, and infuse them in water in the proportion of two ounces of the seeds to half a pint of water. After standing a few hours, the whole assumes the form of an emulsion, or thick mucilage. The whole of this should be taken by an adult, in the morning fasting; and two or three hours after, sufficient castor oil should be given to move the bowels freely. If the dose does not cause expulsion of the worm, repeat the same the following morning. —*North Western Med. and Surg. Journal.*

A Genuine Reform.—We have before us a copy of the Type of the Times, published in Cincinnati, O., by Longley & Brothers, a firm of five young men of energy, who are engaged in promoting the Phonetic or Spelling Reform, by the publication of Books and Periodicals in the reformed and scientific orthography. The "Type of the Times" is a mammoth sheet, of good paper, well printed, and made up into sixteen four-column pages, convenient alike for reading and preservation. A limited portion of it is printed with the new Alphabet, which any one can read after a few minutes observation; but the body of the paper is filled with judiciously prepared matter, in the common spelling, for the patronage of the reading public.

By the list of Phonetic Books advertised in the "Type," we judge the Spelling Reform is making permanent progress. Besides a series of Phonotypic School Readers, and instruction books for the study of Phonetic Shorthand, we observe the New Testament, Biographies of the Presidents of the U. S., and their portraits, an essay on Money Getting and Money Spending, &c. There is also in course of publication a large Phonetic Dictionary, to be ready by September next.

The merit of this system consists in having a distinct letter for each sound in the language, and in always representing each sound by the same letter.

All that is necessary in learning to read, therefore, is to learn the characters, and the pupil is as sure to pronounce a word correctly,

belonging to any other language, as he is the most common household word. What an advantage would this be to pupils, were it in general use, especially to those learning other languages. And what a vast amount of money and precious time it would save to be devoted to other objects. This steam and lightning age can not long abide the *oughs* and *aighs*, and the thousand and one other ridiculous contortions of the English alphabet to represent simple sounds. Brevity is one of the marked characteristics of the age, and if everything which has more length than depth, passes its gauntlet without losing a few of its last joints, it will be on account of its speed.

The price of the Type is $2,00, and such is the arrangement of the publishers for the present year, that every person subscribing for the paper will receive in addition, a premium in books, ranging from 50 cents to $3,00, according to the number of copies sent to his office, so that the paper alone will cost no one over $1,50, while many will receive in addition to their paper, one, two and three dollars worth of books. This may look unreasonable; but we have no reason to doubt that it will be faithfully lived up to on the part of the publishers. The arrangement will pay them by the introduction which it will give to their publications throughout the country. Who will get up a club?

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SESSION OF 1855-56.

THE REGULAR SESSION OF STARLING MEDICAL COLLEGE will begin on Wednesday, the 17th day of October, 1855, and continue for *five full months.*

FACULTY.

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Professor of Theory and Practice, and Dean.

FRANCIS CARTER, M.D.,
Professor of Obstetrics, and Diseases of Women and Children.

E. M. MOORE, M.D.,
Professor of Surgery.

JOHN DAWSON, M.D.,
Professor of General and Special Anatomy and Physiology.

J. W. HAMILTON, M.D.,
Prof. of Materia Medica, Therapeutics and Medical Jurisprudence.

THEO. G. WORMLEY, M.D.,
Professor of Chemistry.

W. D. M'MILLIN, M.D.,
Demonstrator of Anatomy.

The Trustees and Faculty are happy in being able to announce the gratifying success that has attended their extension of the term to five months. It has enabled the faculty to give a more complete course in each department, and been more profitable and satisfactory to the student; and a larger number of our class remained till the close of the session than ever before.

The organization of the institution, as now effected, will, we are assured, secure for it a success not before attained. Its Professors are all residents; and fully identified in every way with its highest prosperity. Their present arrangements will enable them to add yearly to their means of illustration.

The faithful attention, flattering acquirements, and commendation of a class so intelligent as our last, is a guaranty that the efforts made for their instruction were fully appreciated. While every department was fully and clearly illustrated, the whole instruction was made yet more valuable by the clinics, the microscopic illustrations, and the extensive course on organic and analytical chemistry.

FEES.

Tickets of all the Professors	$60 00
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pense, on application to the Demonstrator of Anatomy, *and in no other way.*

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R. J. PATTERSON, M. D.,
Oculist.

Starling Hall, Columbus, O, May 1, 1855.

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UNEVERSITY OF NEW YORK.

Medical Department.

SESSION OF 1855-56.

THE LECTURES WILL COMMENCE ON MONDAY, OCT. 15th, and be continued until 1st of March following. The session of 1854–55 was attended by a class of 307 students, on 106 of whom the degree of Doctor of Medicine was conferred.

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Rev. Isaac Ferris, D.D., LL. D., *Chancellor of the University.*

Valentine Mott, M.D., LL.D., Emeritus Professor of Surgery and Surgical Anatomy, and Ex-President of the Faculty.

Martin Paine, M.D., LL.D., Professor of Materia Medica and Therapeutics.

Gunning S. Bedford, M.D., Professor of Obstetrics, the Diseases of Women and Children, and Clinical Midwifery.

John W. Draper, M.D., LL.D., Professor of Chemistry and Physiology.

Alfred C. Post, M.D., Professor of the Principles and Operations of Surgery, with Surgical and Pathological Anatomy.

William H. Van Buren, M.D., Professor of General and Descriptive Anatomy.

John T. Metcalfe, M.D., Professor of the Institutes and Practice of Medicine.

Charles E. Isaacs, M.D., Demonstrator of Anatomy.

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The course of Lectures given will be on Anatomy—general, descriptive, surgical and pathological; Principles and Operations of Surgery; Materia Medica and Therapeutics; Institutes and Practice of Medicine; Obstetrics, the Diseases of Women and Children, with Clinical Midwifery; Chemistry and Physiology; Clinical Surgery; Clinical Medicine; Clinical Lectures on the Diseases of the Genito Urinary Organs; Clinical Lectures on the Diseases of Women and Children; Clinical Lectures on Physical Diagnosis.

PRACTICAL ANATOMY.

The Legislature of New York having passed the Anatomical bill, the students will be furnished with ample facilities for the study of this department.

CLINICAL INSTRUCTION

will be given at the New York Hospital and Bellevue Hospital; and the various Dispensaries of the city, including the Eye and Ear Infirmary, in which there are yearly more than 80,000 patients, will be open to the students free of charge. In addition, there are held in the College Building, also free of charge to the students of the university, five Cliniques each week, as follows: 1. *An Obstetric Clinique for the diseases of women and children* on every Monday, from 2½ to 4½ o'clock P. M., by Prof. BEDFORD. Since the organization of this Clinique in October, 1849, there have been actually presented to the classes of the university between *eight and nine thousand* cases of the most interesting diseases incident to women and children.

2. *A Surgical Clinique* on every Tuesday, from 2½ to 4½ o'clock P. M., by Prof. MOTT. This clinique presents abundant opportunity for the study of surgical disease, and witnessing every variety of surgical operations.

3. *A Medical Clinique* every Wednesday, from 2½ to 3½ P. M., by Prof. METCALFE. Patients laboring under diseases of the lungs, heart, &c., are presented at this Clinique, and full opportunity is given to the students for the study of physical diagnosis, &c.

4. *Surgical Clinique, with the diseases of the Genito Urinary Organs*, every Wednesday, from 3½ to 4½ P. M., by Prof. VAN BUREN. Besides its general surgical advantages, this Clinique presents ample opportunities for the study of syphilitic disease, strictures, &c.

5. *Surgical Clinique* every Saturday, from 11 A. M. to 1 P. M., by Prof. POST. During the session just closed, besides various operations of importance, Prof. Post performed in this Clinique, before his class, Lithotrity fifteen times and Lithotomy once, with entire success.

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For instruction by the Demonstrator	5
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NEW YORK, April , 1845.

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